FTP2.4A

AA

Service
Service
Service

For manual LGE Plasma panel see: 3122 785 15590
For manual FHP Plasma panel see: 3122 785 14580
For manual SDI Plasma panel see: 3122 785 14990

Service Manual

Contents **Page**

1. Technical Specifications, Connections, and Chassis Overview 2
2. Safety Instructions, Warnings, and Notes 5
3. Directions for Use 7
4. Mechanical Instructions 8
5. Service Modes, Error Codes, and Fault Finding 13
6. *Block Diagrams and Overviews*
   - Wiring Diagram 42” SDI 25
   - Wiring Diagram 42” FHP Step 26
   - Wiring Diagram 50” SDI Step 27
   - Block Diagram Supply 42” FHP 28
   - Block Diagram Video 29
   - Block Diagram Audio 30
   - I2C Overview 31
   - Supply Lines Overview (FHP) 32
   - Supply Lines Overview (SDI) 33
7. *Circuit Diagrams and PWB Layouts* *Diagram* *PWB*
   - PDP FHP Supply: Filter Standby (A2) 34 39-44
   - PDP FHP Supply: Protection (A3) 35 39-44
   - PDP FHP Supply: Pre Conditioner (A5) 36 39-44
   - PDP FHP Supply: LLC Supply (A6) 37 39-44
   - PDP FHP Supply: AUX Supply (A7) 38 39-44
   - Ambi Light (One Panel) (AL) 45 46
   - Ambi Light (Two Panels) (AL) 47 48
   - SSB: IF, I/O Video Processing (B2) 49 83-94
   - SSB: PICNIC (B3A) 50 83-94
   - SSB: (FEM) Falconic Embedded Memory (B3B) 51 83-94
   - SSB: Eagle (B3C) 52 83-94
   - SSB: Columbus (B3D) 53 83-94
   - SSB: FBX Supply (B3E) 54 83-94
   - SSB: HOP (B4) 55 83-94
   - SSB: OTC-Flash (B5A) 56 83-94
   - SSB: Backlight Control (B5B) 57 83-94
   - SSB: OTC-Flash (B5C) 57 83-94
   - SSB: Audio Demodulator (B6A) 58 83-94
   - SSB: Dolby Digital Decoder (B6B) 59 83-94
   - SSB: Dolby Pro Logic Processor (B6C) 60 83-94
   - SSB: Audio Delay (B6D) 61 83-94
   - SSB: DC/DC Converter (B12) 62 83-94
   - SSB: Main Tuner (B13A) 63 83-94
   - SSB: Sub Tuner (B13B) 64 83-94
   - SSB: DC/DC Converter (B13C) 65 83-94
   - SSB: I/O 1 (B14A) 66 83-94
   - SSB: I/O 2 Connections (B14B) 67 83-94
   - SSB: I/O 3 Switch (B14C) 68 83-94
   - SSB: I/O 4 Audio (B14D) 69 83-94
   - SSB: I/O 5 (B14E) 70 83-94
   - SSB: I/O 6 Digital Input (B14F) 71 83-94
   - SSB: I/O 7 (B14G) 72 83-94
   - SSB: PIP HIP (B15A) 73 83-94
   - SSB: PIP Switch (B15B) 74 83-94
   - SSB: PIP Muppet (B15C) 75 83-94
   - SSB: HDI A/D Converter (B19A) 76 83-94
   - SSB: EPLD Control (B19B) 77 83-94
   - SSB: EPLD OSD (B19C) 78 83-94
   - SSB: EPLD I/O (B19D) 79 83-94
   - SSB: Backlight Control (B19E) 80 83-94
   - SSB: Screen Interface (B20) 81 83-94
   - SSB: Connection (B21) 82 83-94
   - PDP Audio Amplifier (C) 95 96
   - Side I/O Panel (D) 97 98
   - Top Control Panel (E) 99 100
   - LED and Switch Panel (J) 101 102
8. Alignments 103
9. Circuit Descriptions, Abbreviation List, and IC Data Sheets 109
10. Spare Parts List 112
11. Revision List 127

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PHILIPS

1. Technical Specifications, Connections, and Chassis Overview

Index of this chapter:

1.1 Technical Specifications
1.2 Connections
1.3 Chassis Overview

Notes:

- Figures can deviate due to the different set executions.
- Specifications are indicative (subject to change).

1.1 Technical Specifications

1.1.1 Vision

Display type	:	Plasma, 16:9
Screen size	:	42” (106 cm), FHP +
		42” (106 cm), SDI
	:	50” (127 cm), SDI
Resolution (HxV pixels)	:	42" - 1024x768p
	:	50" - 1366x768p
Contrast ratio	:	3000:1 (42”)
	:	1000:1 (50”)
Light output (cd/m^2)	:	42" - 1000
	:	50" - 900
Viewing angle (HxV degrees)	:	160 x 160
Tuning system	:	PLL
Colour systems	:	PAL B/G, D/K, I (1)
	:	NTSC M/N
	:	SECAM B/G, D/K, L/L’
Supported computer formats	:	640x480
	:	800x600
	:	1024x768
Supported video formats	:	640x480i - 1fH
	:	720x576i - 1fH
	:	640x480p - 2fH
	:	720x576p - 2fH
	:	1920x1080i - 2fH
	:	1920x1152i - 2fH
	:	1280x720p - 3fH
AV (playback only)	:	NTSC, PAL, SECAM
Presets/channels	:	100 presets
Tuner bands	:	UHF, VHF, S, H-band

(1) TVs with stroke version /93 can only receive PAL.

1.1.2 Sound

Sound systems	:	AV stereo,
	:	FM/FM B/G
	:	NICAM B/G, D/K, I
Maximum power (W_{RMS})	:	2 x 15

1.1.3 Miscellaneous

Power supply:		
- Mains voltage (V_{AC})	:	220 - 240
- Mains frequency (Hz)	:	50 / 60
Ambient conditions:		
- Temperature range (°C)	:	+5 to +40
- Maximum humidity	:	90% R.H.
Power consumption		
- Normal operation (W)	:	42" - 257
	:	50" - 375
- Stand-by (W)	:	< 2
Dimensions (WxHxD cm)	:	111x78x10 (42”)
	:	128x88x10 (50”)
Weight (kg)	:	42 (42”), 58 (50”)

1.2 Connections

Note: The following connector colour abbreviations are used (acc. to DIN/IEC 757): Bk= Black, Bu= Blue, Gn= Green, Gy= Grey, Rd= Red, Wh= White, and Ye= Yellow.

1.2.1 Side I/O

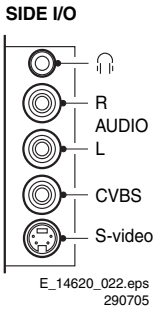

Figure 1-1 Side I/O connections

Headphone (Output)

	- Headphone	32 - 600 ohm / 10 mW

Cinch: Video CVBS - In, Audio - In

Rd	- Audio R	0.5 V_{RMS} / 10 kohm
Wh	- Audio L	0.5 V_{RMS} / 10 kohm
Ye	- Video CVBS	1 V_{PP} / 75 ohm

S-video (Hosiden): Video Y/C - In

1	- Ground Y	Gnd
2	- Ground C	Gnd
3	- Video Y	1 V_{PP} / 75 ohm
4	- Video C	0.3 V_{PP}P / 75 ohm

1.2.2 Rear Connections

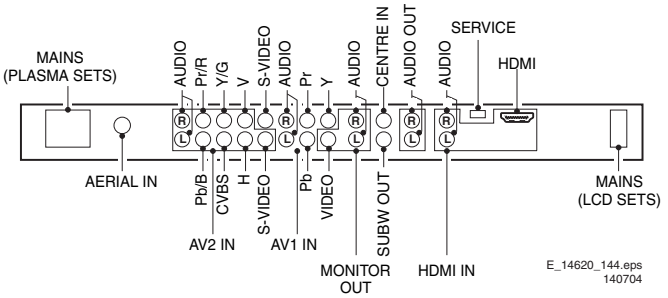

Figure 1-2 Rear connections

Aerial - In

	- IEC-type (/79, 98)	Coax, 75 ohm
	- F-type (/93)	Coax, 75 ohm

AV2 Cinch: Video CVBS/YPbPr/RGB - In, Audio - In

Wh	- Audio L	0.5 V_{RMS} / 10 kohm
Rd	- Audio R	0.5 V_{RMS} / 10 kohm
Bu	- Video Pb/B	0.7 V_{PP} / 75 ohm
Rd	- Video Pr/R	0.7 V_{PP} / 75 ohm
Ye	- Video CVBS	1 V_{PP} / 75 ohm
Ge	- Video Y/G	0.7 V_{PP} / 75 ohm
Bk	- Sync H	0 - 5 V
Bk	- Sync V	0 - 5 V

AV2 S-Video: Y/C - In

1	- Ground Y	Gnd
2	- Ground C	Gnd
3	- Video Y	1 V_{PP} / 75 ohm
4	- Video C	0.3 V_{PP} / 75 ohm

AV1 S-Video: Y/C - In

1	- Ground Y	Gnd
2	- Ground C	Gnd
3	- Video Y	1 V_{PP} / 75 ohm
4	- Video C	0.3 V_{PP} / 75 ohm

AV1 Cinch: Video CVBS/YPbPr - In, Audio - In

Wh	- Audio L	0.5 V_{RMS} / 10 kohm
Rd	- Audio R	0.5 V_{RMS} / 10 kohm
Bu	- Video Pb	0.7 V_{PP} / 75 ohm
Rd	- Video Pr	0.7 V_{PP} / 75 ohm
Ge	- Video Y	0.7 V_{PP} / 75 ohm

Monitor out

Ye	- Video CVBS	1 V_{PP} / 75 ohm
Wh	- Audio L	0.5 V_{RMS} / 10 kohm
Rd	- Audio R	0.5 V_{RMS} / 10 kohm

Cinch: Sub woofer - Out, Centre - In

Bu	- Centre	0.5 V_{RMS} / 10 kohm
Bk	- Sub woofer	0.5 V_{RMS} / 10 kohm

Cinch: Audio - Out

Rd	- Audio - R	0.5 V_{RMS} / 10 kohm
Wh	- Audio - L	0.5 V_{RMS} / 10 kohm

Cinch: HDMI Audio - In

Rd	- Audio - R	0.5 V_{RMS} / 10 kohm
Wh	- Audio - L	0.5 V_{RMS} / 10 kohm

Service connector (ComPair)

1	- SDA-S	I^2C Data (0 - 5 V)
2	- SCL-S	I^2C Clock (0 - 5 V)
3	- Ground	Gnd

HDMI: Digital Video, Digital Audio - In

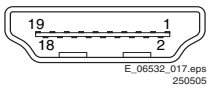

Figure 1-3 HDMI (type A) connector

1	- D2+	Data channel
2	- Shield	Gnd
3	- D2-	Data channel
4	- D1+	Data channel
5	- Shield	Gnd
6	- D1-	Data channel
7	- D0+	Data channel
8	- Shield	Gnd
9	- D0-	Data channel
10	- CLK+	Data channel
11	- Shield	Gnd
12	- CLK-	Data channel
13	- n.c.	
14	- n.c.	
15	- DDC_SCL	DDC clock
16	- DDC_SDA	DDC data
17	- Ground	Gnd
18	- +5V	
19	- HPD	Hot Plug Detect
20	- Ground	Gnd

1.3 Chassis Overview

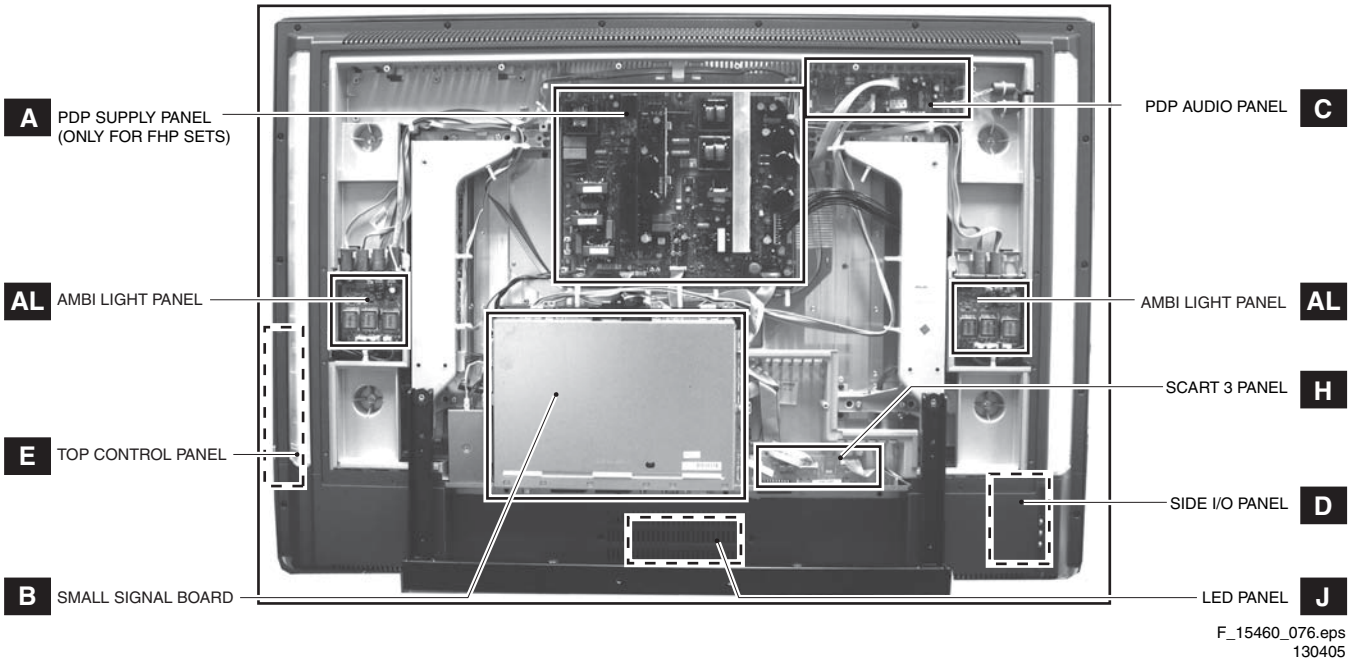

Figure 1-4 PWB location (photo from 42" FHP model)

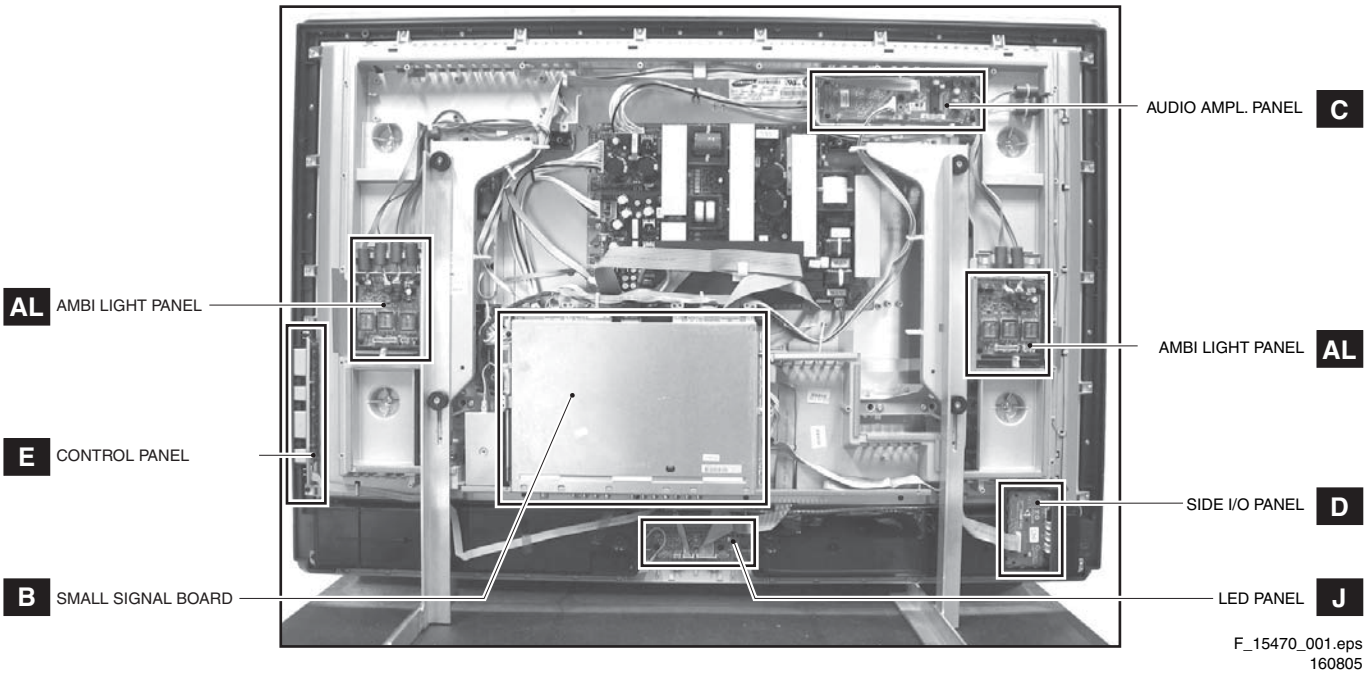

Figure 1-5 PWB locations (photo from SDI model)

2. Safety Instructions, Warnings, and Notes

Index of this chapter:

2.1 Safety Instructions
2.2 Warnings
2.3 Notes

2.1 Safety Instructions

Safety regulations require the following **during** a repair:

- Connect the TV to the Mains (AC Power) via an isolation transformer (> 800 VA).
- Replace safety components, indicated by the symbol ⚠, only by components identical to the original ones. Any other component substitution (other than original type) may increase risk of fire or electrical shock hazard.

Safety regulations require that **after** a repair, the TV must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the Mains (AC Power) lead for external damage.
- Check the strain relief of the Mains (AC Power) cord for proper function.
- Check the electrical DC resistance between the Mains (AC Power) plug and the secondary side (only for sets that have a Mains (AC Power) isolated power supply):
  1. Unplug the Mains (AC Power) cord and connect a wire between the two pins of the Mains (AC Power) plug.
  2. Set the Mains (AC Power) switch to the "on" position (keep the Mains (AC Power) cord unplugged!).
  3. Measure the resistance value between the pins of the Mains (AC Power) plug and the metal shielding of the tuner or the aerial connection on the TV. The reading should be between 4.5 Mohm and 12 Mohm.
  4. Switch "off" the TV, and remove the wire between the two pins of the Mains (AC Power) plug.
- Check the cabinet for defects, to prevent touching of any inner parts by the customer.

2.2 Warnings

- All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD ⚠). Careless handling during repair can reduce life drastically. Make sure that, during repair, you are connected with the same potential as the mass of the TV by a wristband with resistance. Keep components and tools also at this same potential. Available ESD protection equipment:
  – Complete kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) 4822 310 10671.
  – Wristband tester 4822 344 13999.
- Be careful during measurements in the high voltage section.
- Never replace modules or other components while the unit is switched "on".
- When you align the TV, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

2.3 Notes

2.3.1 General

- Measure the voltages and waveforms with regard to the chassis (= tuner) ground (⏚), or hot ground (⏚), depending on the tested area of circuitry. The voltages and waveforms shown in the diagrams are indicative. Measure them in the Service Default Mode (see chapter 5) with a colour bar signal and stereo sound (L: 3 kHz, R: 1 kHz unless stated otherwise) and picture carrier at 475.25 MHz for PAL, or 61.25 MHz for NTSC (channel 3).
- Where necessary, measure the waveforms and voltages with (⊓) and without (⊼) aerial signal. Measure the voltages in the power supply section both in normal operation (①) and in stand-by (⏻). These values are indicated by means of the appropriate symbols.
- The semiconductors indicated in the circuit diagram and in the parts lists, are interchangeable per position with the semiconductors in the unit, irrespective of the type indication on these semiconductors.
- Manufactured under license from Dolby Laboratories. “Dolby”, “Pro Logic” and the “double-D symbol”, are trademarks of Dolby Laboratories.

2.3.2 Schematic Notes

- All resistor values are in ohms, and the value multiplier is often used to indicate the decimal point location (e.g. 2K2 indicates 2.2 kohm).
- Resistor values with no multiplier may be indicated with either an "E" or an "R" (e.g. 220E or 220R indicates 220 ohm).
- All capacitor values are given in micro-farads (μ= x10^{-6}), nano-farads (n= x10^{-9}), or pico-farads (p= x10^{-12}).
- Capacitor values may also use the value multiplier as the decimal point indication (e.g. 2p2 indicates 2.2 pF).
- An "asterisk" (*) indicates component usage varies. Refer to the diversity tables for the correct values.
- The correct component values are listed in the Spare Parts List. Therefore, always check this list when there is any doubt.

2.3.3 Rework on BGA (Ball Grid Array) ICs

General

Although (LF)BGA assembly yields are very high, there may still be a requirement for component rework. By rework, we mean the process of removing the component from the PWB and replacing it with a new component. If an (LF)BGA is removed from a PWB, the solder balls of the component are deformed drastically so the removed (LF)BGA has to be discarded.

Device Removal

As is the case with any component that, is being removed, it is essential when removing an (LF)BGA, that the board, tracks, solder lands, or surrounding components are not damaged. To remove an (LF)BGA, the board must be uniformly heated to a temperature close to the reflow soldering temperature. A uniform temperature reduces the risk of warping the PWB. To do this, we recommend that the board is heated until it is certain that all the joints are molten. Then carefully pull the component off the board with a vacuum nozzle. For the appropriate temperature profiles, see the IC data sheet.

Area Preparation

When the component has been removed, the vacant IC area must be cleaned before replacing the (LF)BGA.
Removing an IC often leaves varying amounts of solder on the mounting lands. This excessive solder can be removed with either a solder sucker or solder wick. The remaining flux can be removed with a brush and cleaning agent.
After the board is properly cleaned and inspected, apply flux on the solder lands and on the connection balls of the (LF)BGA.
Note: Do not apply solder paste, as this has been shown to result in problems during re-soldering.

Device Replacement
The last step in the repair process is to solder the new component on the board. Ideally, the (LF)BGA should be aligned under a microscope or magnifying glass. If this is not possible, try to align the (LF)BGA with any board markers. So as not to damage neighbouring components, it may be necessary to reduce some temperatures and times.

More Information
For more information on how to handle BGA devices, visit this URL: *www.atyourservice.ce.philips.com* (needs subscription, not available for all regions). After login, select “Magazine”, then go to “Workshop Information”. Here you will find Information on how to deal with BGA-ICs.

2.3.4 Lead-free Solder

Philips CE is producing lead-free sets (PBF) from 1.1.2005 onwards.

Identification: The bottom line of a type plate gives a 14-digit serial number. Digits 5 and 6 refer to the production year, digits 7 and 8 refer to production week (in example below it is 1991 week 18).

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230205

Figure 2-1 Serial number example

Regardless of the special lead-free logo (which is not always indicated), one must treat all sets from this date onwards according to the rules as described below.

Figure 2-2 Lead-free logo

Due to lead-free technology some rules have to be respected by the workshop during a repair:
- Use only lead-free soldering tin Philips SAC305 with order code 0622 149 00106. If lead-free solder paste is required, please contact the manufacturer of your soldering equipment. In general, use of solder paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free soldering tin. The solder tool must be able:
  - To reach a solder-tip temperature of at least 400°C.
  - To stabilise the adjusted temperature at the solder-tip.
  - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature of around 360°C - 380°C is reached and stabilised at the solder joint. Heating time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C, otherwise wear-out of tips will increase drastically and flux-fluid will be destroyed. To avoid wear-out of tips, switch “off” unused equipment or reduce heat.
- Mix of lead-free soldering tin/parts with leaded soldering tin/parts is possible but PHILIPS recommends strongly **to avoid** mixed regimes. If this cannot be avoided, carefully clear the solder-joint from old tin and re-solder with new tin.
- Use only original spare-parts listed in the Service-Manuals. Not listed standard material (commodities) has to be purchased at external companies.
- Special information for lead-free BGA ICs: these ICs will be delivered in so-called "dry-packaging" to protect the IC against moisture. This packaging may only be opened shortly before it is used (soldered). Otherwise the body of the IC gets "wet" inside and during the heating time the structure of the IC will be destroyed due to high (steam-) pressure inside the body. If the packaging was opened before usage, the IC has to be heated up for some hours (around 90°C) for drying (think of ESD-protection!).
  Do not re-use BGAs at all!
- For sets produced before 1.1.2005, containing leaded soldering tin and components, all needed spare parts will be available till the end of the service period. For the repair of such sets nothing changes.

In case of doubt whether the board is lead-free or not (or with mixed technologies), you can use the following method:
- Always use the highest temperature to solder, when using SAC305 (see also instructions below).
- De-solder thoroughly (clean solder joints to avoid the mixing of two alloys).

Caution: For BGA-ICs, you **must** use the correct temperature profile, which is coupled to the 12NC. For an overview of these profiles, visit the website *www.atyourservice.ce.philips.com* (needs subscription, but is not available for all regions).
You will find this and more technical information within the "Magazine", chapter "Workshop information".
For additional questions please contact your local repair help desk.

2.3.5 Alternative BOM identification

In September 2003, Philips CE introduced a change in the way the serial number (or production number, see Figure 2-1) is composed. From this date on, the **third digit** in the serial number (example: AG**2**B0335000001) indicates the number of the alternative BOM (Bill of Materials used for producing the specific model of TV set). It is possible that the same TV model on the market is produced with e.g. two different types of displays, coming from two different O.E.M.s.
By looking at the third digit of the serial number, the service technician can see if there is more than one type of B.O.M. used in the production of the TV set he is working with. He can then consult the At Your Service Web site, where he can type in the Commercial Type Version Number of the TV set (e.g. 28PW9515/12), after which a screen will appear that gives information about the number of alternative B.O.M.s used.
If the third digit of the serial number contains the number 1 (example: AG**1**B033500001), then there is only one B.O.M. version of the TV set on the market. If the third digit is a 2 (example: AG**2**B0335000001), then there are two different B.O.M.s. ***Information about this is important for ordering the correct spare parts!***
For the third digit, the numbers 1...9 and the characters A...Z can be used, so in total: 9 plus 26 = 35 different B.O.M.s can be indicated by the third digit of the serial number.

2.3.6 Practical Service Precautions

- **It makes sense to avoid exposure to electrical shock.** While some sources are expected to have a possible dangerous impact, others of quite high potential are of limited current and are sometimes held in less regard.
- **Always respect voltages**. While some may not be dangerous in themselves, they can cause unexpected reactions that are best avoided. Before reaching into a powered TV set, it is best to test the high voltage insulation. It is easy to do, and is a good service precaution.

3. Directions for Use

You can download this information from the following websites:
http://www.philips.com/support
http://www.p4c.philips.com

4. Mechanical Instructions

Index of this chapter:

4.1 Cable Dressing
4.2 Service Position
4.3 Assy/PWB Removal
4.4 Plasma Panel / Glass Plate (Dis)Assembly
4.5 Set Re-assembly

Notes:

- Figures below can deviate slightly from the actual situation, due to the different set executions.
- All photo's are made of the SDI model, however the FHP model will not deviate much from it.
- Be aware that the internal (gold coloured) frame is made of conducting material. So, be cautious during electrical measurements!

4.1 Cable Dressing

4.1.1 Chassis

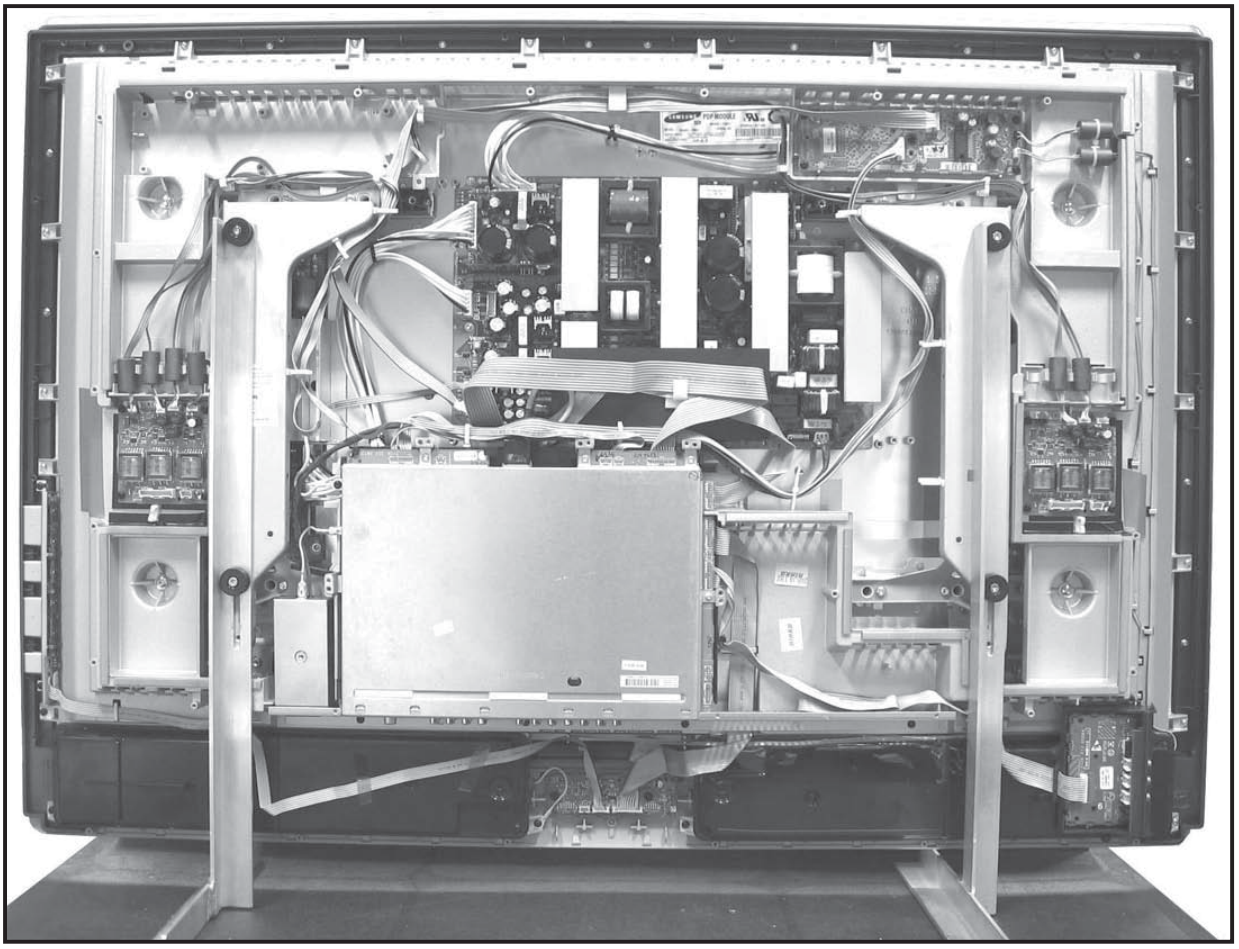

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Figure 4-1 Chassis cable dressing

4.2 Service Position

For easy servicing of this set, there are a few possibilities created:

- The buffers from the packaging.
- Foam bars (created for Service).
- Aluminium service stands (created for Service).

4.2.1 Foam Bars

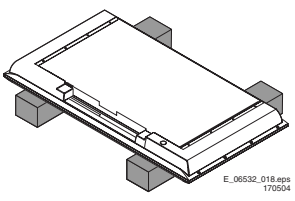

Figure 4-2 Foam bars

The foam bars (order code 3122 785 90580 for two pieces) can be used for all types and sizes of Flat TVs. By laying the TV

face down on the (ESD protective) foam bars, a stable situation is created to perform measurements and alignments.
By placing a mirror under the TV, you can monitor the screen.

4.2.2 Aluminium Stands

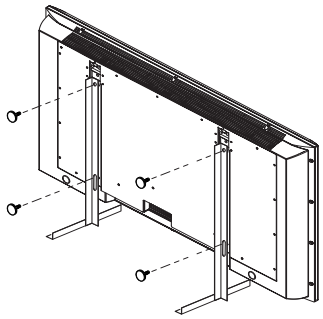

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Figure 4-3 Aluminium stands (MkI)

The new (MkII) aluminium stands (order code 3122 785 90690) can also be used to do measurements, alignments, and duration tests. The stands can be (dis)mounted quick and easy by means of sliding them in/out the "mushrooms".
Important: For (older) FTV sets without these "mushrooms", it is obligatory to use the provided screws, otherwise it is possible to damage the monitor inside!.

4.3 Assy/PWB Removal

4.3.1 Metal Back Plate

Caution: Disconnect the mains power cord before you remove the metal back plate.

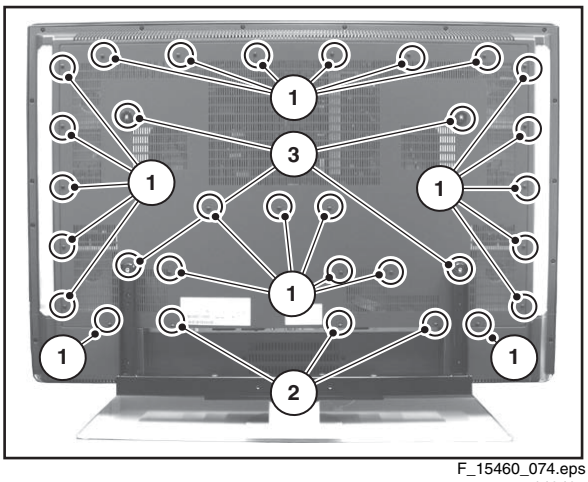

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Figure 4-4 Metal back plate

1. Place the TV set upside down on a table top, using the foam bars (see part "Foam Bars").
   Caution: do **not** put pressure on the display, but let the monitor lean on the speakers or the Front cover.
2. Remove all T10 parker screws [1] from the top, centre, and left and right sides of the back plate.
3. Remove all T10 tapping screws [2] from the bottom of the back plate.
4. Remove the four "mushrooms" [3] from the back plate.
5. Lift the back plate from the TV. Make sure that wires and flat foils are not damaged during the back plate removal.

4.3.2 Rear Cover

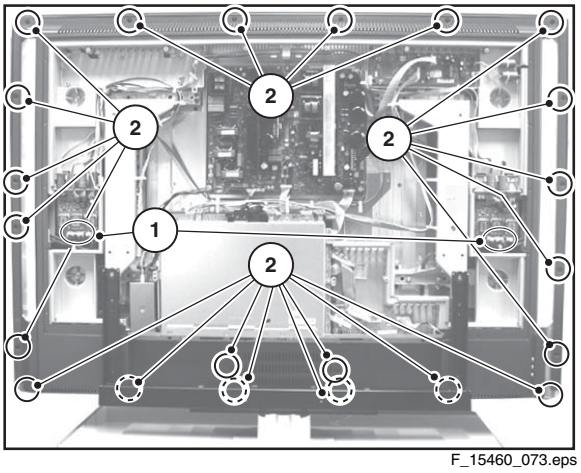

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Figure 4-5 Rear cover

1. Disconnect all connectors [1] at both Ambient Light Inverters that go to the Ambient Lights in the rear cover.
2. Remove all T10 tapping screws [2] around the edges of the rear cover.
3. Lift the rear cover from the TV.

4.3.3 Ambient Light Panel(s)

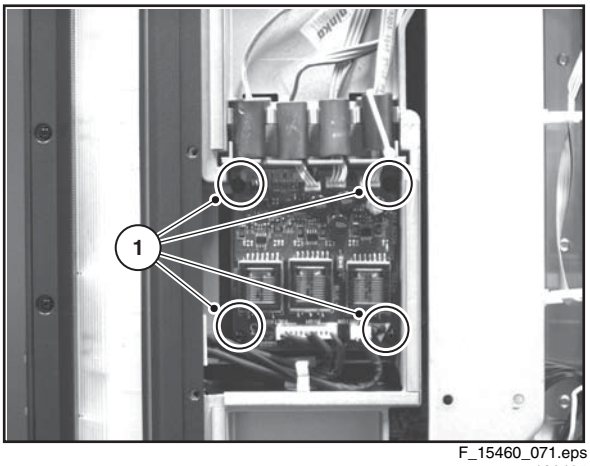

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Figure 4-6 Ambient light inverter (left side)

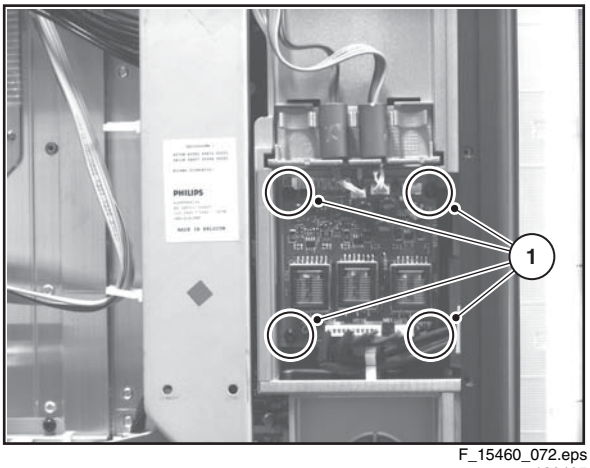

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Figure 4-7 Ambient light inverter (right side)

Later models are equipped with two Ambient Light Inverter panels. For the earlier models with one panel, reference is made to the FTP2.2x Service Manual for the correct mechanical instructions.

1. Disconnect all cables from the Ambient Light Inverter panel.
2. Remove all mounting screws [1] from the Ambient Light Inverter panel.
3. Take out the Ambient Light Inverter panel.

4.3.4 Power Supply Panel

1. Disconnect all cables from the Power Supply panel.
2. Remove all mounting screws from the Power Supply panel.
3. Take out the Power Supply panel.

4.3.5 Audio Panel

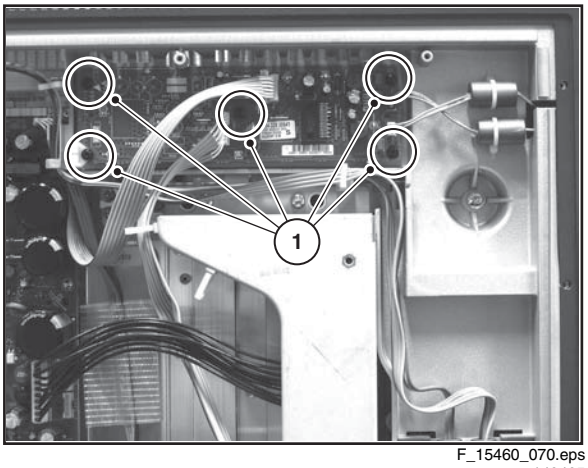

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Figure 4-8 Audio panel

1. Disconnect all cables from the Audio panel.
2. Remove all mounting screws [1] from the Audio panel.
3. Take out the Audio panel.

4.3.6 Side I/O Panel

1. Disconnect the cable from the Side I/O panel.
2. Release the clamps and take out the Side I/O panel from its bracket.

4.3.7 Control Panel

1. Remove the mounting screws from the Control panel bracket.
2. Disconnect the cable.
3. Release the clamps and take out the Control panel.

4.3.8 LED Panel

1. Disconnect all cables from the LED panel.
2. Remove the mounting screws from the LED panel.
3. Take out the LED panel.

4.3.9 Speakers

1. Remove all mounting screws.
2. After removing the cover plate (seven screws), you can access the speakers.
3. Be sure that the foam that makes the unit airtight is not damaged.

4.3.10 SSB

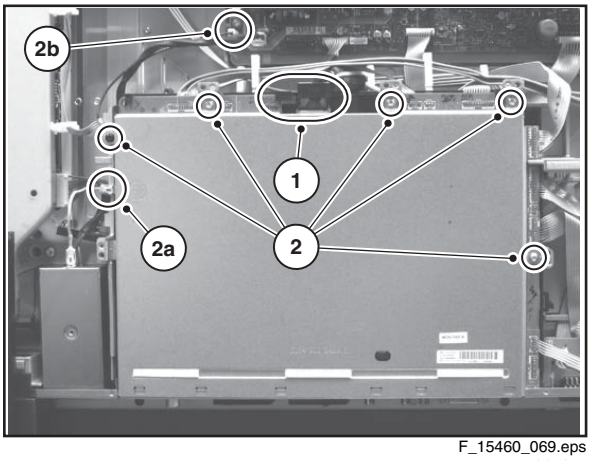

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Figure 4-9 SSB top shielding

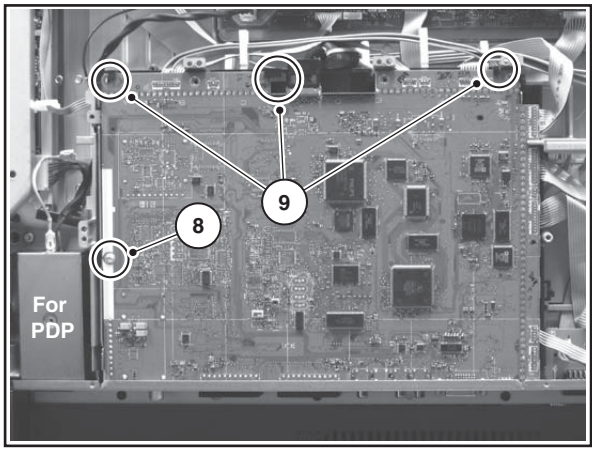

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Figure 4-10 SSB removal

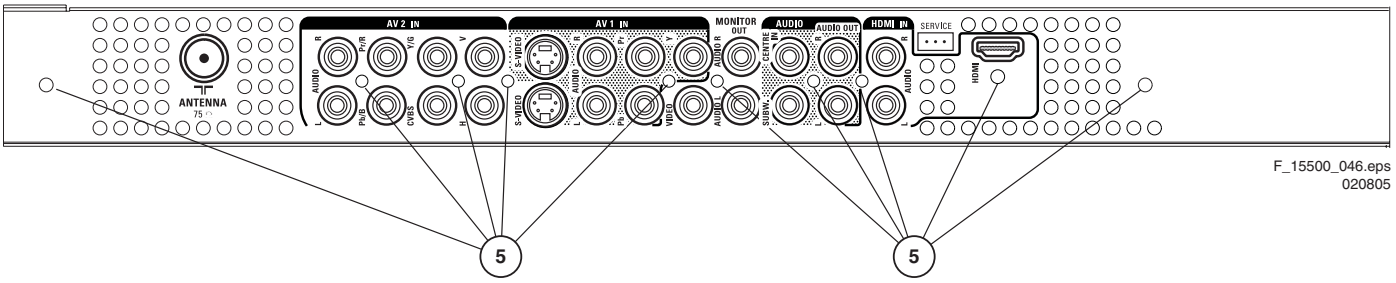

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Figure 4-11 Connector plate

1. Remove the LVDS locking bracket [1].
2. Remove all shielding fixing screws [2].
3. Disconnect the grounding wire from the mains filter [2a].
4. Slide, and lift the shielding at the top. The panel hinges at the connector side. **Caution:** do **not** damage the EMC shielding foam while you remove the shielding.
5. Remove the connector mounting screws [5].
6. Disconnect the LVDS cable, and all other cables.
7. Remove the mounting screw [8] from the SSB.
8. Bend the brackets [9] away (may require some force), lift the SSB, and take it out.

4.3.11 Ambi Light Lamp Unit

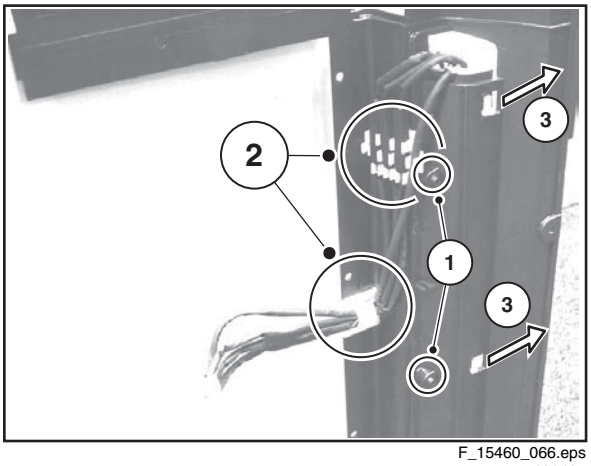

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Figure 4-12 Ambient light (partly shown)

Ambient lights are located in the rear cover of the TV.

1. Unplug the connectors.
2. Remove all mounting Ambient Light screws [1].
3. Move the Ambient light unit to the side [3] and take out the unit.

4.4 Plasma Panel / Glass Plate (Dis)Assembly

Important: Be sure to work in a dust free environment during the following activities. In addition, the use of (fabric) hand gloves is advised.

4.4.1 Plasma Display Panel

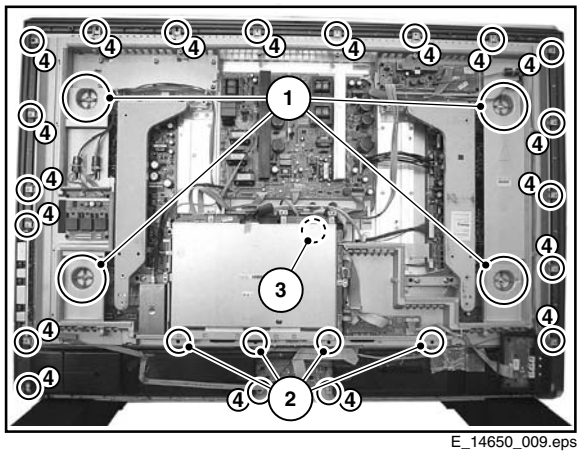

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Figure 4-13 Plasma panel removal

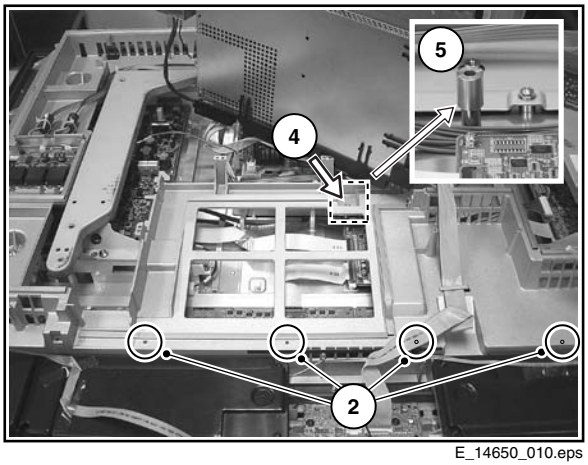

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Figure 4-14 Hidden screw

Disassembly

1. Place the TV set face down on the foam bars. Place the bars at the edges of the TV so they will support the front frame, and not only the glass plate!
2. Remove the four T25 screws [1] that hold the plasma panel.
   Note: In some models, the upper left T25 screw is hidden under the Ambient Light Inverter panel. Remove this panel to get access to it.
3. Remove the **fifth** T25 screw that is located near the SSB.
   Note: In some models, this fifth screw is hidden **under** the SSB. To get access, you have to remove the four T10 screws [2] that mount the "SSB connector plate" to the frame. Then, lift the complete SSB unit away, so you can remove the hidden screw [4].
4. Remove all T10 tapping screws around the frame [4].
5. Next step is to unplug the following connectors (see also Wiring Diagram in chapter 6):
   – Mains plug on PSU.
   – Audio panel supply plug on PSU.
   – LVDS plug on SSB (first remove the fixation clamp).
   – Ambilight supply plug on PSU.
   – SSB supply plugs on PSU.
   – Side/Top Control plug on LED panel.
   – Side I/O plug on LED panel.
   – SSB grounding wire.
   – Loosen all necessary cables from their clamps.
6. Lift the plastic frame together with all PWBs from the PDP panel.
7. Now the PDP (incl. the PSU panel) can be removed. Lift the panel at the two metal bars from the glass plate.

Assembly

In order to centre the (new) plasma panel correctly w.r.t. the glass plate, do the following:

1. Place the (new) plasma panel face down on foam bars.
2. Also, place the front assy (front panel with glass plate) on two other foam bars.
3. Mount the plastic frame on the plasma panel.
4. Lift this module (frame and PDP) and place it onto the front assy.
5. Now follow the above described disassembly process in reverse order.

4.4.2 Glass Plate

1. Follow the above-described PDP disassembly instructions.
2. After removing the PDP, the glass plate is accessible.

4.5 Set Re-assembly

To re-assemble the whole set, execute all processes in reverse order.

Note: While re-assembling the TV, make sure that:

- All cables are placed and connected in their original position (see figure “Cable dressing”).
- EMC Shielding foam is intact.
- LVDS connector (SSB) is secured with plastic clamp.
- All "grounding" wires are re-connected:
  – Between metal speaker grid and frame (near the LED panel).
  – Between the Mains Filter and the SSB Top Shielding (see figure SSB Top shielding item 2a).
  – Between the SSB Top Shielding and the PSU (see figure SSB Top shielding item 2b).

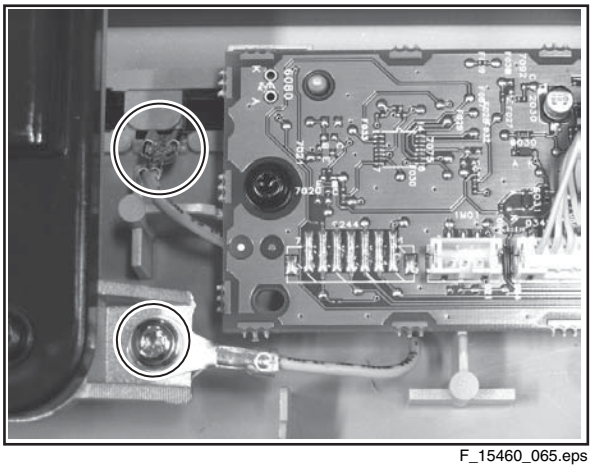

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Figure 4-15 Grounding wire of metal speaker grid

5. Service Modes, Error Codes, and Fault Finding

Index of this chapter:

5.1 Test Points
5.2 Service Modes
5.3 Problems And Solving Tips (Related To CSM)
5.4 Service Tools
5.5 Error Codes
5.6 The Blinking LED Procedure
5.7 Protections
5.8 Repair Tips
5.9 Software Downloading

5.1 Test Points

The chassis is equipped with test points printed on the circuit board assemblies.

Perform measurements under the following conditions:
- Service Default Mode.
- Video: colour bar signal.
- Audio: 3 kHz left, 1 kHz right.

5.2 Service Modes

Service Default Mode (SDM) and Service Alignment Mode (SAM) offer several features for the service technician, while the Customer Service Mode (CSM) is used for communication between a Philips Customer Care Centre (P3C) and a customer.

There is also the option of using ComPair, a hardware interface between a computer (see requirements below) and the TV chassis. It offers the ability of structured troubleshooting, test pattern generation, error code reading, software version read-out, and software upgrading.
Minimum requirements: a Pentium processor, Windows 95/ 98, and a CD-ROM drive (see also paragraph “ComPair”).

Remark: The silk screen printing is not correct for the SAM/ SDM indication. For the correct location of these pins, see figure ”Service pads”.

5.2.1 Service Default Mode (SDM)

Purpose
- To create a pre-defined setting, to get the same measurement results as given in this manual.
- To override SW protections.
- To start the blinking LED procedure.

Specifications

Table 5-1 SDM default settings

Region	Freq. (MHz)	Default system
Europe, AP-PAL/Multi	475.25	PAL B/G
NAFTA, AP-NTSC, LATAM	61.25 (ch. 3)	NTSC M

- All picture settings at 50% (brightness, colour, contrast).
- All sound settings at 50%, except volume at 25%.
- All service-unfriendly modes (if present) are disabled, like:
  - (Sleep) timer.
  - Child/parental lock.
  - Blue mute.
  - Automatic volume limiter (AVL).
  - Auto switch-off (when no video signal was received for 10 minutes).
  - Skip/blank of non-favourite pre-sets.
  - Smart modes.
  - Auto store of personal presets.
  - Auto user menu time-out.

How To Activate SDM
Use one of the following methods:
- Use the standard RC-transmitter and key in the code **“062596”**, directly followed by the “MENU” button.
  Note: It is possible that, together with the SDM, the main menu will appear. To switch it off, push the “MENU” button again.

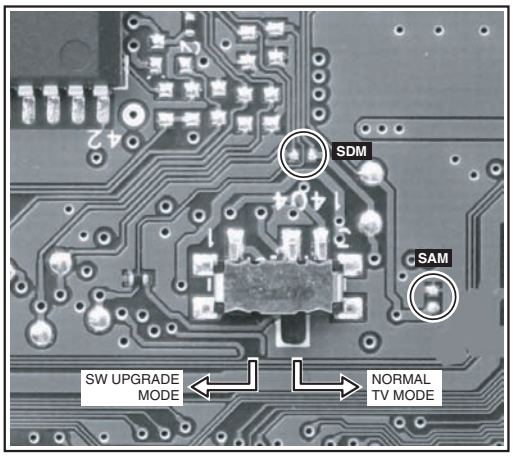

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Figure 5-1 Service pads

- Short for a moment the two solder pads on the SSB, with the indication “SDM” (see figure ”Service pads”). Activation can be performed in all modes, except when the TV has a problem with the main microprocessor.
  Caution: If the SDM is activated via the pins, all the software-controlled protections are de-activated.
- Use the DST-emulation feature of ComPair.
- Use the “DEFAULT” button on the Dealer Service Tool (RC7150).

How To Navigate
When you press the “MENU” button on the RC transmitter, the TV will toggle between the SDM and the normal user menu (with the SDM mode still active in the background).

How To Exit SDM
Use one of the following methods:
- Switch the TV to STANDBY via the RC-transmitter.
- Press the “EXIT” button on the DST.
- Via a standard customer RC-transmitter: key in “00”-sequence.

5.2.2 Service Alignment Mode (SAM)

Purpose
- To perform (software) alignments.
- To change option settings.
- To easily identify the used software version.
- To view operation hours.
- To display (or clear) the error code buffer.

Specifications
- Operation hours counter.
- Software version.
- Option settings.
- Error buffer reading and erasing.
- Software alignments.

How To Activate SAM

Use one of the following methods:

- Via a standard RC transmitter: key in the code **"062596"** directly followed by the "OSD [i+]" button. After activating SAM with this method a service warning will appear on the screen, you can continue by pressing any digit key on the RC.
- Short for a moment the two solder pads on the SSB with the indication "SAM" (see figure "Service pads"). Depending on the software version, it is possible that a service warning will appear. You can continue by pressing any digit key on the RC.
- Use the DST-emulation feature of ComPair.
- Press the ALIGN button on the DST while the TV is in the normal operation

After activating this mode, "SAM" will appear in the upper right corner of the screen.

Contents Of SAM:

- **Operation Hours.** Displays the accumulated total of operation hours (not the stand-by hours).
- **Hardware Info.**
  - **ROM Version.** Displays the date of the software and the software version of the ROM
    Ex.: TX24EU_1.0_01234 = AAAABB_X.Y_NNNNN.
    - **AAAA**= the chassis name.
    - **BB**= the region: EU= Europe, AP= Asia Pacific PAL/Multi, AN= Asia Pacific NTSC, US= USA, LT= LATAM.
    - **X.Y**= the software version, where X is the main version number (different numbers are not compatible with one another) and Y is the sub version number (a higher number is always compatible with a lower number).
    - **NNNNN**= last five digits of 12nc code software.
  - **FBX Version.** Displays the software version of the FBX
  - **SW VERSION EPLD**. Displays the software version of the EPLD.
- **Errors.** (followed by maximal 10 errors). The most recent error is displayed at the upper left (for an error explanation see paragraph "Error Codes").
- **Defective Module.** Here the module that generates the error is displayed. If there are multiple errors in the buffer, which are not all generated by a single module, there is probably another defect. It will then display the message "UNKNOWN" here.
- **Reset Error Buffer.** When you press the "OK" button, the error buffer is reset.
- **Alignments.** This will activate the "ALIGNMENTS" sub-menu.
- **Dealer Options.** Extra features for the dealers.
- **Service Options.** Extra features for Service.
- **Initialise NVM.** When an NVM was corrupted (or replaced) in the former EM3 chassis, the microprocessor replaces the content with default data (to assure that the TV can operate). However, all pre-sets and alignment values are gone now, and option numbers are not correct. Therefore, this was a very drastic way. In this chassis, the procedure is implemented in another way: The moment the processor recognises a corrupted NVM, the "initialise NVM" line will be highlighted. Now, you can do two things (dependent of the service instructions at that moment):
  - Save the content of the NVM via ComPair for development analysis, **before** initialising. This will give the Philips Service department an extra possibility for diagnosis (e.g. when Development asks for this).
  - Initialise the NVM (same as in the past, however now it happens conscious).
- **Store.** All options and alignments are stored when pressing the "OK"-button
- **Functional Test.** All devices are tested via the "OK" button. Eventual errors are displayed in the error buffer. The error buffer is not erased, the content returns when this test is terminated.
- **Daily Menus.** With the "OK" button, you can go to the normal user menu. SAM is still active in the background. With the "MENU" button, you return from the user menu to SAM menu. This feature can be helpful to quickly change some settings in the user menu.
- **SW Maintenance.**
  - **Upgrade.** More info see paragraph Software downloading.
  - **Events.** Not useful for service purposes. In case of specific software problems, the development department can ask for this info.
  - **BDM Info.** Broadcast Debug Menu info. The purpose of this menu is to debug the broadcast, **not** the TV. The menu gives an overview of what is received on the current preset.

Following items are displayed:

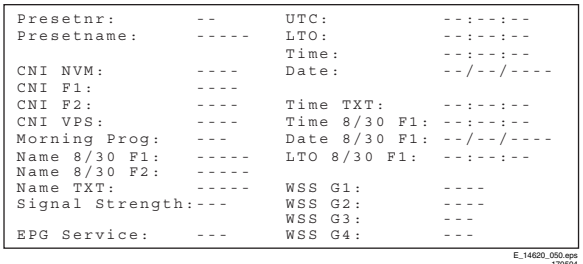


Figure 5-2 Broadcast debug menu overview

Table 5-2 Broadcast debug menu explanation

Item	Source	Description
Presetnr	Set	Preset number of the current selected preset.
Presetname	Set	Preset name of the current selected preset.
CNI NVM	Broadcaster	CNI number stored in NVM for the current preset.
CNI F1	Broadcaster	CNI number from transmitted Packet 8/30 Format 1.
CNI F2	Broadcaster	CNI number from transmitted Packet 8/30 Format 2.
CNI VPS	Broadcaster	CNI number from transmitted VPS line.
Morning Prog	Broadcaster	"ARD" or "ZDF" according to dedicated bit in 8/30 Format 1.
Name 8/30 F1	Broadcaster	Name extracted from status message of 8/30 Format 1.
Name 8/30 F2	Broadcaster	Name extracted from status message of 8/30 Format 2.
Name TXT	Broadcaster	Name extracted from TXT header.
Signal Strength	FBX	Noise figure measured for selected preset.
EPG Service	Set	EPG Service stored in NVM for current preset displayed as "TXT", "MCP", "SCP", "OCP".
UTC	Set	UTC (Universal Time Code formerly known as Greenwich Mean Time) used in the TV.
LTO	Set	LTO (Local Time Offset) used in the TV. Used by EPG for all NextView displays. (= Time TXT header - Time 8/30 F1)
Time	Set	Current time running in the TV. Was extracted at start-up, then maintained by software.
Date	Set	Current date running in the TV. Was extracted at start-up, then maintained by software.
Time TXT	Broadcaster	TXT header time from the selected preset.
Time 8/30 F1	Broadcaster	UTC time from 8/30 Format 1.
Date 8/30 F1	Broadcaster	Date from 8/30 Format 1.
LTO 8/30 F1	Broadcaster	LTO from 8/30 Format 1.
WSS G1	Broadcaster	WSS Group 1 (Aspect Ratio) bits 0 1 2 3
WSS G2	Broadcaster	WSS Group 2 (Enhanced Services) bits 4 5 6 7
WSS G3	Broadcaster	WSS Group 3 (Subtitles) bits 8 9 10
WSS G4	Broadcaster	WSS Group 4 (Reserved) bits 11 12 13

How To Navigate

- In SAM, you can select the menu items with the “CURSOR UP/DOWN” key on the RC-transmitter. The selected item will be highlighted. When not all menu items fit on the screen, move the “CURSOR UP/DOWN” key to display the next/previous menu items.
- With the “CURSOR LEFT/RIGHT” keys, it is possible to:
  – (De) activate the selected menu item.
  – Change the value of the selected menu item.
  – Activate the selected sub-menu.

How To Exit SAM

Use one of the following methods:

- Press the “MENU” button on the RC-transmitter, or
- Switch the TV to STANDBY via the RC-transmitter, or
- Press the “EXIT” button on the DST.

5.2.3 Customer Service Mode (CSM)

Purpose

When a customer is having problems with his TV-set, he can call his dealer. The service technician can than ask the customer to activate the CSM, in order to identify the status of the TV. Now, the service technician can judge the severity of the complaint. In many cases, he can advise the customer how to solve the problem, or he can decide if it is necessary to visit the customer.
The CSM is a read only mode; therefore, modifications in this mode are not possible.

How To Activate CSM

Use the following method:
Key in the code **“123654”** via the standard RC transmitter.

Note: Activation of the CSM is only possible if there is no (user) menu on the screen!

How To Navigate

By means of the “CURSOR-DOWN/UP” knob on the RC-transmitter, you can navigate through the menus.

Contents Of CSM

CUSTOMER SERVICE MENU 1

- **Software Version (example: TX24EU_1.0_01234).** Displays the built-in software version. In case of field problems related to software, software can be upgraded (for more details, see paragraph Software downloading). You will find details of the software versions in the chapter “Software Survey” of the “Product Survey - Colour Television” publication. This publication is generated four times a year.
- **Feature Box**. The 12NC-number of the built-in Feature Box software.
- **Set Type.** This information is very helpful for a help desk/ workshop as reference for further diagnosis. In this way, it is not necessary for the customer to look at the rear of the TV-set.
- **Code 1.** Gives the latest five errors of the error buffer. As soon as the built-in diagnose software has detected an error the buffer is adapted. The last occurred error is displayed on the left most position. Each error code is displayed as a 3-digit number. When less than 10 errors occur, the rest of the buffer is empty (000). See also paragraph Error Codes for a description.
- **Code 2.** Gives the first five errors of the error buffer. See also paragraph Error Codes for a description.
- **Volume.** Gives the last status of the volume as set by the customer. The value can vary from 0 (volume is minimum) to 100 (volume is maximum). Volume values can be changed via the volume key on the RC-transmitter.
- **Brightness.** Gives the last status of the brightness as set by the customer. The value can vary from 0 (brightness is minimum) to 100 (brightness is maximum). Brightness values can be changed via the “CURSOR LEFT” and “CURSOR RIGHT” keys on the RC-transmitter after pressing the “MENU” button and selecting “PICTURE” and “BRIGHTNESS”.
- **Contrast.** Gives the last status of the contrast as set by the customer. The value can vary from 0 (contrast is minimum) to 100 (contrast is maximum). Contrast values can be changed via “CURSOR LEFT” and “CURSOR RIGHT” keys on the RC-transmitter after pressing the “MENU” button and selecting “PICTURE” and “CONTRAST”.
- **Colour.** Gives the last status of the colour saturation, as set by the customer. The value can vary from 0 (colour is minimum) to 100 (colour is maximum). Colour values can be changed via “CURSOR LEFT” and “CURSOR RIGHT” keys on the RC-transmitter after pressing the “MENU” button and selecting “PICTURE” and “COLOUR”.
- **Hue.** Only relevant for NTSC-signals (e.g. some NTSC-DVD-discs).

CUSTOMER SERVICE MENU 2

- **Sharpness.** Gives the sharpness value. The value can vary from 0 (sharpness is minimum) to 7 (sharpness is maximum). In case of bad antenna signals, a too high value of the sharpness can result in a noisy picture. Sharpness values can be changed via the “CURSOR LEFT” and “CURSOR RIGHT” keys on the RC-transmitter after pressing the “MENU” button and selecting “PICTURE” and “SHARPNESS”.
- **Headphone Volume.** Gives the last status of the head phone volume, as set by the customer. The value can vary from 0 (volume is minimum) to 100 (volume is maximum). Head phone volume values can be changed via the “CURSOR LEFT” and “CURSOR RIGHT” keys on the RC-transmitter after pressing the “MENU” button and selecting “SOUND” and “HEADPHONE VOLUME”.
- **Dolby.** Indicates whether the received transmitter transmits Dolby sound (“ON”) or not (“OFF”). Attention: The presence of Dolby can only be tested by the software on the Dolby Signalling bit. If a Dolby transmission is received without a Dolby Signalling bit, this indicator will show “OFF” even though a Dolby transmission is received.
- **Surround Mode.** Indicates the by the customer selected surround mode (or automatically chosen mode). Possible values are “OFF”, “INCREDIBLE SURROUND” OR “DOLBY VIRTUAL”. These settings can be influenced after pressing the “MENU” button and selecting “SOUND” and SURROUND MODE”. It can also have been selected automatically by signalling bits (internal software).
- **Tuner Frequency.** Indicates the frequency the selected transmitter is tuned to. The tuner frequency can be changed via the “CURSOR LEFT” and “CURSOR RIGHT” keys for fine tune after opening the installation menu and selecting “INSTALL” and “MANUAL INSTALL”.
- **Digital Option.** Gives the selected digital mode, “PROGRESSIVE SCAN”, “MOVIE PLUS” or “PIXEL PLUS”. Change via “MENU”, “PICTURE”, “DIGITAL OPTIONS”.
- **Centre Trim.** Not applicable for this set.
- **TV System.** Gives information about the video system of the selected transmitter.
  – BG: PAL BG signal received.
  – DK: PAL DK signal received.
  – I: PAL I signal received.
  – L/La: SECAM L/La signals received.
  – M: NTSC M signal received with video carrier on 38.9 MHz.

CUSTOMER SERVICE MENU 3

- **Balance.** Indicates the balance settings, between “-50” and “+50”. Change via “MENU”, “SOUND”, and “BALANCE”. Not applicable for Dolby Pro Logic sets.
- **Centre Mode.** Not applicable for this TV.

- **DNR.** Gives the selected DNR setting (Dynamic Noise Reduction), “OFF”, “MINIMUM”, “MEDIUM”, or “MAXIMUM”. Change via “MENU”, “PICTURE”, “DNR”
- **Noise Figure.** Gives the noise ratio for the selected transmitter. This value can vary from 0 (good signal) to 127 (average signal) and to 255 (bad signal). For some software versions, the noise figure will only be valid when “Active Control” is set to “medium” or “maximum”.
- **Source.** Indicates which source is used and the video/ audio signal quality of the selected source.
  Example: Tuner, Video/NICAM) Source: “TUNER”, “EXT1”, “EXT2”, “EXT3”, “EXT4”, “SIDE”, “AV1”, “AV2”, “AV3” or “AV4”. Video signal quality: “VIDEO”, “S-VIDEO”, “RGB 1FH”, “YPBPR 1FH 480P”, “YPBPR 1FH 576P”, “YPBPR 1FH 1080I”, “YPBPR 2FH 480P”, “YPBPR 2FH 576P”, “YPBPR 2FH 1080I”, “RGB 2FH 480P”, “RGB 2FH 576P” or “RGB 2FH 1080I”. Audio signal quality: “STEREO”, “SPDIF 1”, “SPDIF 2”, or “SPDIF”.
- **Audio System.** Gives information about the audio system of the selected transmitter: “ANALOGUE MONO”, “ANALOGUE STEREO”, “PCM 2/0”, “DD 1/0”, “DD 2/0 LtRt”, “DD 2/0 L0R0”, “DD 2/1”, “DD 2/2”, “DD 3/0”, “DD 3/ 1”, “DD 3/2”, “DD 1+1”, “MPEG 1/0”, “MPEG 2/0”, “MPEG 2/0 LtRt”, “MPEG 2/1”, “MPEG 2/2”, “MPEG 3/0”, “MPEG 3/1”, “MPEG 3/2”, “MPEG 1+1” or “MPEG 2+2”.
- **Tuned Bit.** Gives information about the tuning method of the stored pre-set. If a channel is found via “automatic installation”, you will see the value “YES”. When you change this (automatically found) frequency via “fine tune” adjustment (installation menu - manual installation), the displayed value will change to “NO”. Therefore, when you see the value “NO” in this line, it is an indication that the received channel is a non-standard signal (e.g. of a VCR).
- **Surround Speakers.** Not applicable in this set.
- **On Timer.** Indicates if the “On Timer” is set “ON” or “OFF” and if the timer is “ON” also displays start time, start day and program number. Change via “MENU”, “TV”, “FEATURES”, and “ON TIMER”.
- **Preset Lock.** Indicates if the selected preset has a child lock: “LOCKED” or “UNLOCKED”. Change via “MENU”, “TV”, “FEATURES”, “CHILD LOCK”, and “CUSTOM LOCK”.

CUSTOMER SERVICE MENU 4

- **Child Lock.** Indicates the last status of the general child lock: “UNLOCK”, “LOCK”, or “CUSTOM LOCK”. Change via “MENU”, “TV”, “FEATURES”, “CHILD LOCK”, and “LOCK”.
- **Age Lock.** Indicates the last status of the EPG rating for child lock: “OFF”, “4 YEARS”, “6 YEARS”, “8 YEARS”, “10 YEARS”, “12 YEARS”, “14 YEARS” or “16 YEARS”. This is only displayed if child lock is set to “CUSTOM LOCK”
- **Lock After.** Indicates at what time the child lock is set: “OFF” or e.g. “18:45” (lock time). This is only displayed if child lock is set to “CUSTOM LOCK”
- **Category Lock.** Indicates the last status of the EPG theme child lock: “MOVIES”, “NEWS”, “SHOWS”, “SPORTS”, “CHILDREN”, “MUSIC”, “CULTURE”, or “SERIES”. This is only displayed if child lock is set to “CUSTOM LOCK”. It is possible that more than one value is shown.
- **Program Category.** Indicates the theme of the selected transmitter: “MOVIES”, “NEWS”, “SHOWS”, “SPORTS”, “CHILDREN”, “MUSIC”, “CULTURE”, or “SERIES”.
- **TV Ratings Lock.** Only applicable for US.
- **Movie Ratings Lock.** Only applicable for US.
- **V-Chip TV Status.** Only applicable for US.

CUSTOMER SERVICE MENU 5

- **V-Chip Movie Status.** Only applicable for US.
- **Options 1.** Gives the option codes of option group 1 as set in SAM (Service Alignment Mode).
- **Options 2.** Gives the option codes of option group 2 as set in SAM (Service Alignment Mode).
- **AVL.** Indicates the last status of AVL (Automatic Volume Level): “ON” or “OFF”. Change via “MENU”, “TV”, “SOUND”, “AVL”
- **Delta Volume.** Indicates the last status of the delta volume for the selected preset as set by the customer: from “-12” to “+12”. Change via “MENU”, “TV”, “SOUND”, “DELTA VOLUME”.
- **Front Spkr Dist.** Not applicable for this TV.
- **Front Spkr Dist.** Not applicable for this TV.

How To Exit CSM

Use one of the following methods:

- After you press a key on the RC-transmitter (with exception of the “CHANNEL”, “VOLUME” and digit (0-9) keys), or
- After you switch the TV-set “OFF” with the mains switch.

Note: When you de-activate CSM, it is possible (depending on the software version) that the size of the picture changes. This can be solved by pushing “P+” and then “P-”.

5.3 Problems And Solving Tips (Related To CSM)

Note: Below described problems are all related to the TV settings (visible in the CSM menu). The procedures to change the value (or status) of the different settings are described above. New value(s) are automatically stored.

5.3.1 Picture Problems

Snowy/Noisy Picture

1. Check in CSM line NOISE FIGURE. In case the value is "127" or higher, and the value is also high on other programs, check the aerial cable/aerial system. For some software versions, the noise figure will only be valid when “Active Control” is set to “medium” or “maximum”.
2. Check in CSM lines SHARPNESS and NOISE FIGURE. In case the value of line SHARPNESS is "3" or "4" and the value of line NOISE FIGURE is high ("127" or higher), decrease the "Sharpness” value.

Picture Too Dark

1. Press “Menu”, “TV”, “Picture”, “Smart Picture”. In case the picture improves, increase the “Brightness” or the “Contrast” value. The new value(s) are automatically stored (in “personal” pre-set) for all TV channels.
2. Check in CSM line BRIGHTNESS and CONTRAST. If the value of these lines is low (< "10"), increase the “Brightness” or the “Contrast” value via the user menu.

Picture Too Bright

1. Press “Menu”, “TV”, “Picture”, “Smart Picture”. In case the picture improves, decrease the “Brightness” or the “Contrast” value. The new value(s) are automatically stored (in “personal” pre-set) for all TV channels.
2. Check in CSM lines BRIGHTNESS and CONTRAST. If the value of these line is high (> 50), decrease the “Brightness” value or increase the “Contrast” value via the user menu.

White Line Around Picture Elements And Text

1. Press “Menu”, “TV”, “Picture”, “Smart Picture”. In case the picture improves, decrease the “Sharpness” value. The new value is automatically stored (in “personal” pre-set) for all TV channels.
2. Check in CSM line “Sharpness”. If the value is high, decrease it. The new value is automatically stored for all TV channels.

No Picture

Check in CSM line TUNED BIT. In case the value is “No”, install the required program again. Open the installation menu and perform manual installation.

No Picture Or Unstable Picture
A scrambled or decoded signal is received.

Black And White Picture
Check in CSM line COLOUR. In case the value is low (< "10"), increase the “Colour” value via the user menu. The new value is automatically stored for all TV channels.

No Colours/colour Lines Around Picture Elements Or Colours Not Correct Or Unstable Picture
1. Check in CSM line TV SYSTEM. If a “strange” system pops up, something has gone wrong during installation. Re-install the channel.
2. If in CSM line TV SYSTEM is “L”, then the installed system for this pre-set is “France” (SECAM standard). if the country requires a PAL standard, “West Europe” is required. Install the required program again: open the installation menu and perform manual installation. Select system “West Europe”.

Menu Text Not Sharp Enough
1. Press “MENU”, “TV”, “PICTURE”, “SMART PICTURE”. In case picture improves, decrease the contrast value. The new value(s) are automatically stored for all TV channels.
2. Check line “Contrast”. If the value is high, decrease the contrast value.

5.3.2 Sound Problems

No Sound From Left And Right Speaker
Check line 6 “Volume”. The value is low. Increase the value of “Volume”. The new value(s) are automatically stored (in “personal” pre-set) for all TV channels.

5.4 Service Tools

5.4.1 ComPair

Introduction
ComPair (Computer Aided Repair) is a service tool for Philips Consumer Electronics products. ComPair is a further development on the European DST (service remote control), which allows faster and more accurate diagnostics. ComPair has three big advantages:
1. ComPair helps you to quickly get an understanding on how to repair the chassis in a short time by guiding you systematically through the repair procedures.
2. ComPair allows very detailed diagnostics (on I^2C level) and is therefore capable of accurately indicating problem areas. You do not have to know anything about I^2C commands yourself because ComPair takes care of this.
3. ComPair speeds up the repair time since it can automatically communicate with the chassis (when the microprocessor is working) and all repair information is directly available. When ComPair is installed together with the Force/SearchMan electronic manual of the defective chassis, schematics and PWBs are only a mouse click away.

Specifications
ComPair consists of a Windows based fault finding program and an interface box between PC and the (defective) product. The ComPair interface box is connected to the PC via a serial (or RS-232) cable.
For this chassis, the ComPair interface box and the TV communicate via a bi-directional service cable via the service connector(s).

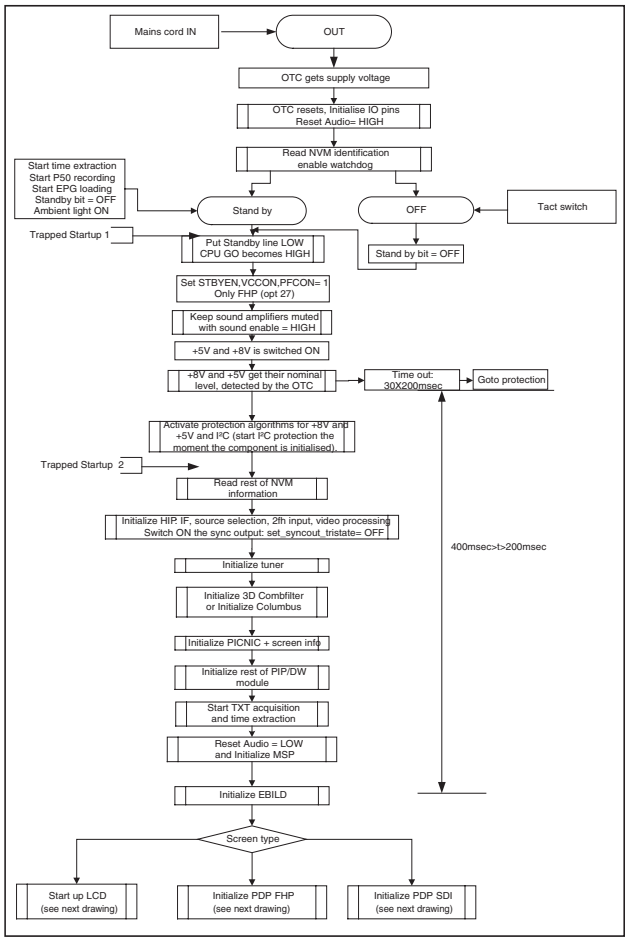
The ComPair fault finding program is able to determine the problem of the defective television. ComPair can gather diagnostic information in two ways:
- Automatically (by communicating with the television): ComPair can automatically read out the contents of the entire error buffer. Diagnosis is done on I^2C/UART level. ComPair can access the I^2C/UART bus of the television. ComPair can send and receive I^2C/UART commands to the microcontroller of the television. In this way, it is possible for ComPair to communicate (read and write) to devices on the I^2C/UART buses of the TV-set.
- Manually (by asking questions to you): Automatic diagnosis is only possible if the microcontroller of the television is working correctly and only to a certain extent. When this is not the case, ComPair will guide you through the fault finding tree by asking you questions *(e.g. Does the screen give a picture? Click on the correct answer: YES / NO)* and showing you examples *(e.g. Measure test-point I7 and click on the correct oscillogram you see on the oscilloscope)*. You can answer by clicking on a link *(e.g. text or a waveform picture)* that will bring you to the next step in the fault finding process.

By a combination of automatic diagnostics and an interactive question / answer procedure, ComPair will enable you to find most problems in a fast and effective way.

Stepwise Start-up
Under normal circumstances, a fault in the power supply, or an error during start-up, will switch the television to protection mode. ComPair can take over the initialisation of the television. In this way, it is possible to distinguish which part of the start-up routine (hence which circuitry) is causing the problem. Take notice that the transition between two steps can take some time, so give the TV some time to reach a stable state. During the transition time, the LED can blink strangely.

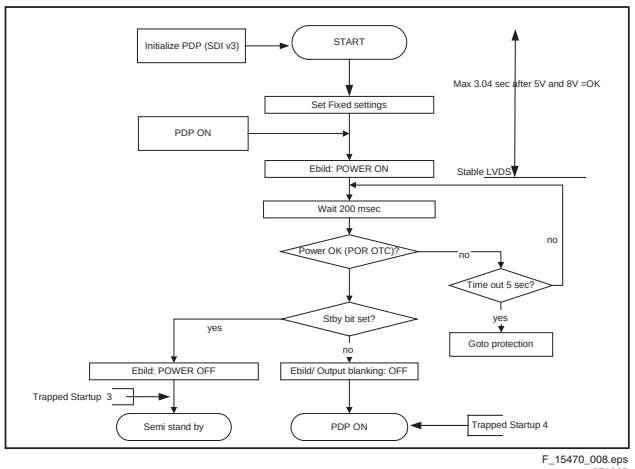
Stepwise Start-up Explanation
This is realised via ComPair and is very helpful when a protection is activated (see also chapter “Protections”). The following diagram shows the start-up procedure of the TV.

Every step of the stepwise start-up (also called trapped start-up) in the diagram corresponds with the number of times the LED blinks.



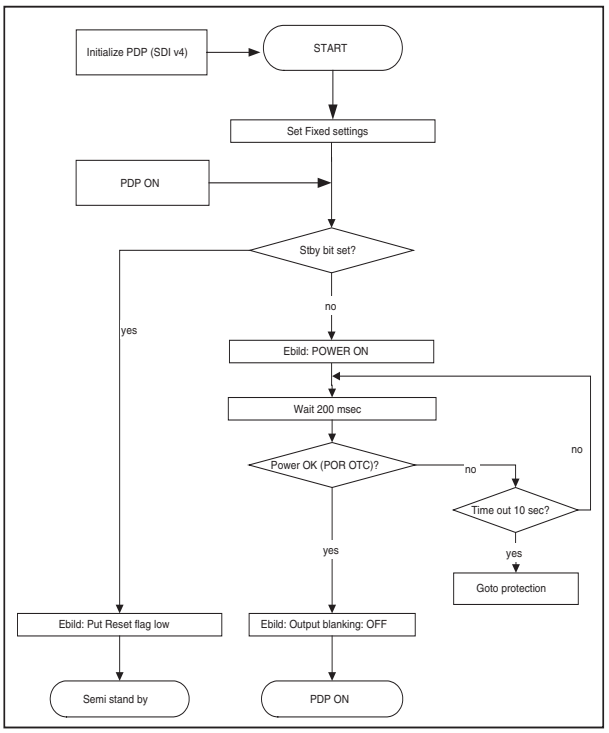
E_14620_048.eps
160805

Figure 5-3 Stepwise start-up (part 1)



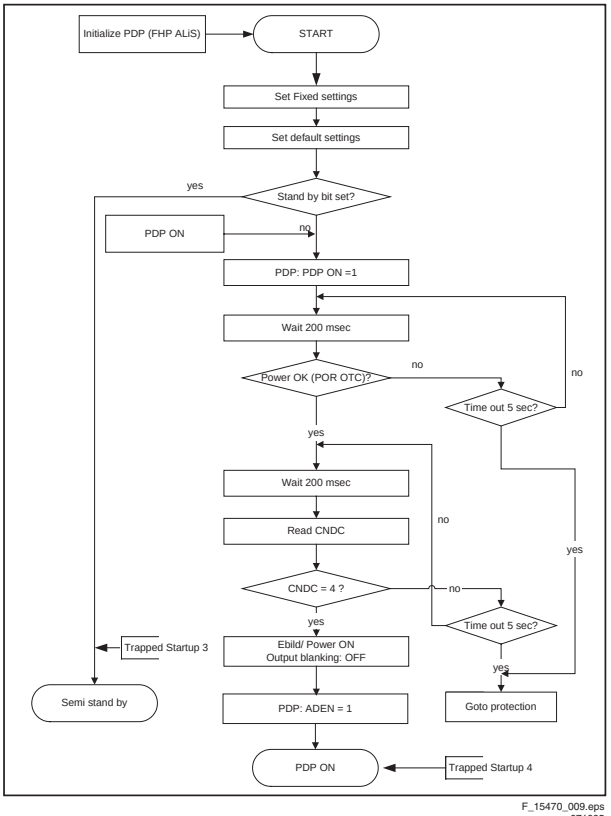
F_15470_008.eps
071005

Figure 5-4 Stepwise start-up (part 2): Initialise SDI v3 (*)



F_15470_005.eps
071005

Figure 5-5 Stepwise start-up (part 2): Initialise SDI v4 (*)



F_15470_009.eps
071005

Figure 5-6 Stepwise start-up FHP ALiS (*)

Notes (*):

- When the TV is in stepwise mode and, due to stepping-up, a protection is activated, the TV will really go into protection (blinking LED). The TV will not leave the stepwise mode however. If state X is the state where the TV went to protection, stepwise start-up will return to state X-1. At state (X-1) diagnostic measurements can be performed.

Also, in the short time the TV is in state X but not yet in protection, you can also do some measurements.
- Stepwise start-up can NOT be used for Samsung displays (SDI). The TV will not react in a proper way, due to other timing specifications.

How to Connect
This is described in the chassis fault finding database in ComPair.

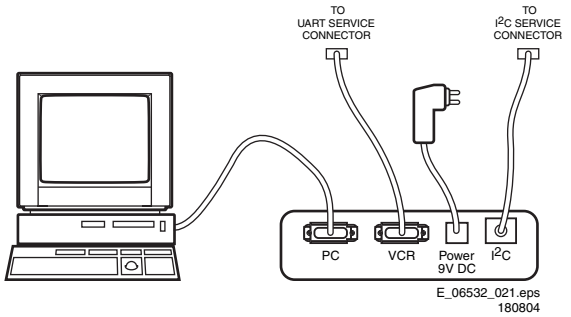


Figure 5-7 ComPair interface connection

How to Order
ComPair order codes (EU/AP/LATAM):
- Starter kit ComPair32/SearchMan32 software and ComPair interface (excl. transformer): 3122 785 90450.
- ComPair interface (excl. transformer): 4822 727 21631.
- Starter kit ComPair32 software (registration version): 3122 785 60040.
- Starter kit SearchMan32 software: 3122 785 60050.
- ComPair32 CD (update): 3122 785 60070 (year 2002), 3122 785 60110 (year 2003 onwards).
- SearchMan32 CD (update): 3122 785 60080 (year 2002), 3122 785 60120 (year 2003), 3122 785 60130 (year 2004).
- ComPair firmware upgrade IC: 3122 785 90510.
- Transformer (non-UK): 4822 727 21632.
- Transformer (UK): 4822 727 21633.
- ComPair interface cable: 3122 785 90004.
- ComPair interface extension cable: 3139 131 03791.
- ComPair UART interface cable: 3122 785 90630.

Note: If you encounter any problems, contact your local support desk.

5.4.2 LVDS Tool

Introduction
This service tool (also called “ComPair Assistant 1“) may help you to identify, in case the TV does not show any picture, whether the Small Signal Board (SSB) **or** the display of a Flat TV is defective.
Furthermore it is possible to program EPLDs with this tool (Byte blaster). Read the user manual for an explanation of this feature.

Since 2004, the LVDS output connectors in our Flat TV models are standardised (with some exceptions). With the two delivered LVDS interface cables (31p and 20p) you can cover most chassis (in special cases, an extra cable will be offered).

When operating, the tool will show a small (scaled) picture on a VGA monitor. Due to a limited memory capacity, it is not possible to increase the size when processing high-resolution LVDS signals (> 1280x960). Below this resolution, or when a DVI monitor is used, the displayed picture will be full size.

Generally this tool is intended to determine if the SSB is working or not. Thus to determine if LVDS, RGB, and sync signals are okay.

How to Connect
Connections are explained in the user manual, which is packed with the tool.

Note: To use the LVDS tool, you must have ComPair release 2004-1 (or later) on your PC (engine version >= 2.2.05).
For every TV type number and screen size, one must choose the proper settings via ComPair. The ComPair file will be updated regularly with new introduced chassis information.

How to Order
- LVDS tool (incl. two LVDS cables: 31p and 20p): 3122 785 90671.
- LVDS tool Service Manual: 3122 785 00810.
- LVDS cable 31p/FI -> 31p/FI (for JL2.1 chassis): 3122 785 90861.
- LVDS cable 30p/DF -> 31p/FI (for LC4.3 chassis): 3122 785 90821.
- LVDS cable 41p/FI -> 31p/FI (dual -> single LVDS): 3122 785 90831.
- LVDS cable 20p/DF -> 20p/DF (standard with tool): 3122 785 90731.
- LVDS cable 31p/FI -> 31p/FI (standard with tool): 3122 785 90662.
- LVDS cable 20p/DF -> 20p/DF (for LC4.1 chassis): 3122 785 90851.

5.5 Error Codes

5.5.1 Introduction

The error code buffer contains all detected errors since the last time the buffer was erased. The buffer is written from left to right, new errors are logged at the left side, and all other errors shift one position to the right.
When an error has occurred, the error is added to the list of errors, provided the list is not full or the error is a protection error.
When an error occurs and the error buffer is full, then the new error is not added, and the error buffer stays intact (history is maintained), except when the error is a protection error.
To prevent that an occasional error stays in the list forever, the error is removed from the list after 50+ operation hours.
When multiple errors occur (errors occurred within a short time span), there is a high probability that there is some relation between them.

5.5.2 How To Read The Error Buffer

Use one of the following methods:
- On screen via the SAM (only if you have a picture). Examples:
  - **0 0 0 0 0**: No errors detected
  - **6 0 0 0 0**: Error code 6 is the last and only detected error
  - **9 6 0 0 0**: Error code 6 was first detected and error code 9 is the last detected error
- Via the blinking LED procedure (when you have no picture). See next paragraph.
- Via ComPair.

5.5.3 How To Clear The Error Buffer

Use one of the following methods:
- By activation of the “RESET ERROR BUFFER” command in the SAM menu.

- With a normal RC, key in sequence “MUTE” followed by **“062599”** and “OK”.
- When you transmit the commands “DIAGNOSE” - “99” - “OK” with ComPair (or with a DST).
- If the content of the error buffer has not changed for 50+ hours, it resets automatically.

5.5.4 Error Codes

In case of non-intermittent faults, clear the error buffer before you begin the repair. This to ensure that old error codes are no longer present. Before clearing the buffer, write down the content, as this history can give you significant information.

If possible, check the entire contents of the error buffer. In some situations, an error code is only the result of another error code and not the actual cause (e.g., a fault in the protection detection circuitry can also lead to a protection).
There are various errors:
- I^2C device errors.
- I^2C bus errors.
- Protection errors.
- Errors not related to an I^2C device, but of importance:
  - **FEM (Falconic with Embedded Memory) (Error 26):** at start-up, after initialisation of the PICNIC, the presence of the FEM can be checked.
  - **Eagle (Error 27):** at start-up, after initialisation of the PICNIC, the presence of the Eagle can be checked.

Table 5-3 Error Code Overview

Error	Device	Description	Def. item	Def. Module indication	Diagr.
1	M24Cxx	NVM, spontaneous blinking error 1	7011	-	B5a
3	SAA4978	PICNIC	7713	Feature Box	B3a
4	Supply 5 V	5V protection	-	+5V Supply	B5a
5	Supply 8 V	8V protection	-	+8V Supply	B5a
6	Slow I^2C bus blocked	Spontaneous blinking error 6	-	Slow I^2C Blocked	-
8	TDA932x	HIP High-end Input Processor	7323	Chroma IF IO	B2
13	UV1318/...	Tuner protection	1T01	Tuner	B13a
14	MSPxxxx	ITT sound processor	7A02	Audio module	B6a
18	Fast I^2C bus blocked	Spontaneous blinking error 18	-	Fast I^2C Blocked	-
21	M62320	I/O Expander	7P56	Video Dual Screen	B15b
23	UV1318/...	PIP Tuner protection	1T02	Video Dual Screen	B13b
24	SAB9081	PIP Muppet	7PA6	Video Dual Screen	B15c
25	Z86130	PIP V-chip (only for USA)	7P51	Video Dual Screen	B15b
26	SAA4998	FEM (Falconic with Embedded Memory)	7760	+3V (FBX) Supply	B3b
27	T6TX5	Eagle 1C	7720	+3V (FBX) Supply	B3c
32	M29W400xx	Flash Ram (EPG)	7012	EPG Memory	B5a
34	TDA9320	Second HIP	7P09	Video Dual Screen	B15a
35	T6TU5	Columbus	7752	Video Control	B3d
55	DC/DC converter	One of the voltages is not ok + protection error	-	MSB	-
76	Audio supply	Audio supply protection	-	-	-
118	AD9883A	AD converter	7L01	HD	B19a
119	Sil9993	HDMI receiver	7I18	Video Control	B14f
121	EPLD	EPLD error	7V01	Video control	B19d
Note: If error 3 or error 55 appears, sometimes error 16 is also logged. Error 16 is a non existing error.					

Note:
- Error codes 1, 6, or 18 are protection codes and in this case, supplies of some circuits will be switched “off”. Also, in protection, the LED will blink the number of times equivalent to the most recent error code.

5.6 The Blinking LED Procedure

5.6.1 Introduction

Via this procedure, you can make the contents of the error buffer visible via the front LED. This is especially useful for fault finding, when there is no picture.

When the SDM is activated, the front LED will show (blink) the contents of the error-buffer. Error-codes > 10 are shown as follows:
- A long blink of 750 ms (which is an indication of the decimal digit),
- A pause of 1.5 s,
- “n” short blinks (where “n” = 1 - 9),
- When all the error-codes are displayed, the sequence finishes with a LED blink of 3 s,
- The sequence starts again.

Note: For error codes >100, the first two digits (hundred-and-ten) are considered as one digit (one long blink)

Example: Error 12 9 6 121 0.
After activation of the SDM, the front LED will show:
- 1 long blink of 750 ms (which is an indication of the decimal digit) followed by a pause of 1.5 s,
- 2 short blinks followed by a pause of 3 s,
- 9 short blinks followed by a pause of 3 s,
- 6 short blinks followed by a pause of 3 s,
- 12 long blinks of 750 ms (which is an indication of “120”) followed by a pause of 1.5 s,
- 1 short blink followed by a pause of 3 s,
- 1 long blink of 3 s to finish the sequence,
- The sequence starts again.

Note: If errors 1, 6, or 18 occur, the LED always gives the last occurred error even if the TV is NOT in service mode.

5.6.2 How To Activate

Use one of the following methods:
- Activate the SDM (only via soldering pads marked “SDM” on SSB, see figure “Service pads”). The blinking front LED will show the entire contents of the error buffer (this works in “normal operation” mode and in “protection” mode).

- Transmit the commands “MUTE” - **“062500”** - “OK” with a normal RC. The complete error buffer is shown. Take notice that it takes some seconds before the blinking LED starts.
- Transmit the commands “MUTE” - **“06250x”** - “OK” with a normal RC (where “x” is a number between 1 and 5). When x= 1 the last detected error is shown, x= 2 the second last error, etc.... Take notice that it takes some seconds before the blinking LED starts.
- “DIAGNOSE X” with the DST (where “x” is a number between 1 and 5). When x= 1 the last detected error is shown, x= 2 the second last error, etc.... When x = 0 all errors are shown.

5.7 Protections

Note: With Samsung PDP displays (SDI V4) boards it is possible that for some errors the blinking LED procedure does not start immediately (e.g. error 18). When the error occurs, the TV goes to protection and it is possible that you have to wait 30 seconds before the blinking LED procedure starts.

5.7.1 Introduction

This chassis has only one microprocessor (OTC), which remains active during Stand-by. This because power of the microprocessor and the attached memory chip set is coming from the 3V3 supply, which is derived from the 5V Stand-by-circuitry. Therefore, in both Power-on as in Stand-by mode, the microprocessor is connected to this power supply.

If a fault situation is detected, an error code will be generated and if necessary, the TV is put in protection mode. The protection mode is indicated by the blinking of the front LED at a frequency of 3 Hz (or by a coded blinking in special cases).

The content of the error buffer can be read via the service menu (SAM), the blinking LED procedure or via DST/ComPair.

To get a quick diagnosis, this chassis has three service-modes implemented:
- The **Customer Service Mode** (CSM).
- The **Service Default Mode** (SDM). Start-up of the TV in a predefined way.
- The **Service Alignment Mode** (SAM). In this mode, items of the TV can be adjusted via a menu.

You can activate both SDM and SAM modes via the “service pads” on the SSB (see figure “Service pads”), via an RC-transmitter (DST or standard RC), or via ComPair. It is not possible to activate the SAM in “stand-by”; the TV has to be in “normal operation” mode.

The “Protection Diagram” shows the structure of the protection system. See diagram below.

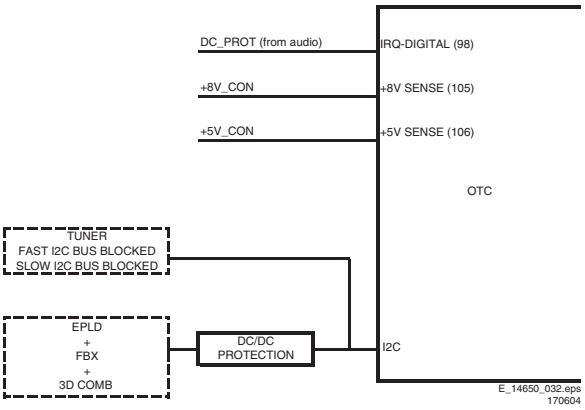


Figure 5-8 Protection diagram

There are several types of protections:
- I^2C related protections.
- OTC related protections (via polling on I/O pins or via algorithms).
- Hardware protection

All protections are explained below.

5.7.2 I^2C Related Protections

In normal operation, some registers of the I^2C controlled ICs are refreshed every 200 ms. During this sequence, the I^2C buses and the I^2C ICs are checked.
An I^2C protection will take place if the SDA and SCL lines are short-circuited to ground, or to each other. An I^2C error will also occur, if the power supply of the IC is missing.

DC/DC protection: When a 3V3 supply is short-circuited, the DC/DC converter switches “off” and goes in protection. The FBX, EPLD IC, and 3D comb IC have no supply voltage and give no acknowledge. In this case, the TV should go into protection. An error code is written in the NVM: DC/DC error.

FBX protection: the FBX protection is not available any more. It is replaced by the DC/DC protection.

5.7.3 OTC Related Protections

If a protection is detected at an OTC input, the OTC will start to scan all protection inputs every 200 ms for 5 times. If the protection on one of the inputs is still active after 1 s, the microprocessor will put the TV in the protection mode. Before the scanning is started, a so-called “ESD refresh” is carried out. This is done, because the interrupt on one of the inputs is possibly caused either by a flash or by ESD. As a flash or ESD can influence IC settings, the HIP, MSP, 3D Comb and wireless module (not used in this set) are initialised again, to ensure the normal picture and sound conditions of the TV.

8 V and 5 V protections: The microprocessor senses the presence of the 8 V and 5 V (via the “+5V_CON” and “+8V_CON” lines). If one (or both) of these voltages is (are) not present, an error code is stored in the error buffer of the NVM, and the TV is put in the protection mode.

Audio Supply protection: The OTC senses if the audio module is in protection via IRQ-DIGITAL (pin 98 of OTC). If this is the case, the OTC puts the TV in protection.

5.7.4 Hardware Protection

Short-circuiting the 3V3 supply from the DC/DC converter will shut down the DC/DC converter. The absence of the 3V3 supply line is also sensed via I^2C (see description Audio Supply protection above), this is useful if there is something wrong in the detection circuit of the DC/DC converter.

Audio DC Protection: This protection occurs when there is a DC voltage on the speakers. In that case, the Main Supply is switched “off”. The Stand-by Supply is still working. For the Samsung SDI V4 displays, all internal supplies (except the 5V2), are switched “off” and the LED on the Samsung SDI V4 display (on PSU Alarm board) blinks 11 times., which means there is an overvoltage protection.

Repair tip: If there is an audio DC protection (DC voltage on your speakers), you will probably see error 18 blink. To be sure this is an audio DC protection, disconnect the cable between the SSB and the audio PWB and also the cable between the Main Supply and the Audio PWB. If the TV starts up, it is very likely that there is DC on the speakers. Check, and replace if necessary, the audio amplifiers.
Note: It is also possible that you have an Audio DC Protection because of an interruption in one or both speakers (the DC

voltage that is still on the circuit can not disappear through the speakers).

5.8 Repair Tips

5.8.1 Power Supply Unit (for Fujitsu - FHP - plasma displays)

Below a troubleshoot sequence for the **FHP** power supply is given (so this is **not** valid for the **SDI** power supply, this is explained further on).

Stand-by Supply
1. 400V present?
2. +9V_STDBY, +5V_STDBY, and 25V_HOT present?

Preconditioner
1. Relay 1450 and 1440 “on” = switch “on” and supply “on” (LATCH= “H” and STANDBY= “L”).
2. 400V or rectified mains present on item 2616?
3. 40V present on item 2664?
4. 15V present on item 2662?

LLC Supply
1. 25V_HOT (from Stand-by supply) present?
2. 25V_HOT_SW (from Preconditioner) present?
3. 17V on pin 15 of item 7001 present?
4. Vcego= “H” and LATCH= “H”?
5. Vrs present? (Vrs=Vs/67).
6. Remark: Vs_unswitched = 65V when switch 7050 is open.

Va Supply
1. Vs_unswitched present?
2. 30V on item 3133 present?
3. Vsa_control= “L” (Vsago= “H” and Vs_lowlim= “H”)
4. Vra present? (Vra=Va/48).

Vcc Supply
1. Vs_switched present?
2. Vccgo= “H”? (Vcego= “H”).

Vs (switched)
1. 95V present on cathode of item 6054?
2. POK= “H” and Vsa_control= “L”? (POK= “H” when Vs, Va, Vcc, 12V, and 8V6 are above their lower limit)

5.8.2 Power Supply Unit (For Samsung - SDI - Plasma Displays)

This PSU is for Service a “black box”. When defective (this can be traced via error-codes in the error buffer, or by strange phenomena), a new panel must be ordered and after receipt, the defective panel must be send for repair.

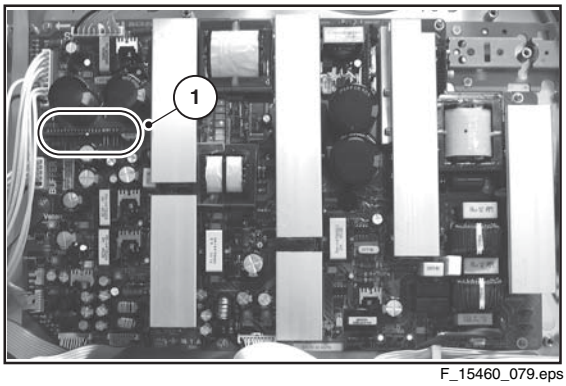


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Figure 5-9 SDI PSU Alarm board

A simple troubleshoot method for the SDI PSU is given below (see also the SDI PDP repair manual, mentioned on the front page).

When the TVis in protection check the LED on the PSU Alarm board (see [1] in figure “SDI PSU Alarm board”). In normal working mode, this LED is "on". However, if this LED is blinking, the PSU is in protection. See table:

Nr. of blinks	Fault Description	Remark
1	V_A block problem	Display voltages
2	12V block	
3	D5VL	Display voltage
4	D3V3	Display voltage
5	V_S	Display voltage
6	V_{CC}/V_G	Display voltage
7	V_{SET}	Display voltage
8	V_E	Display voltage
9	Thermal protection	
10	PFC_OK	Display voltage driving signal
11	OVP	Overvoltage protection OR DC-prot
12	Time_Over	A control signal to the PSU is missing after a certain time period
13	V_{SCAN}	Display voltage

5.8.3 3V3 Supply (DC/DC Converter On The SSB)

As mentioned above, the DC/DC converter is switched “off” when something goes wrong (detection of a missing 3V3 supply at one of the devices supplied by the 3V3). Because of this, the TV goes to protection (I^2C protection). Error code “55” is logged.

For further diagnoses, you need to overrule the I^2C protection: put the TV in Service Default Mode by means of the solder pads on the SSB (see figure “Service pads”).

The DC/DC converter is still not working because it is switched “off” by the 3V3_FAULT line (schematic B12). Now you have some possibilities:

1. First, measure the impedance over diode 6U06. In normal conditions, you should measure approximately 120 ohm (if possible, verify this with another set). If the impedance is much too low, do not try to start up the converter as mentioned below. Remind that if FET 7U03 is short-circuited, this will also influence your measurement.
2. Desolder coils 5U05 and 5U06, connect an external 3V3 supply at capacitor 2U23 (current limitation to 500 mA) and a second external 3V3 supply at capacitor 2U31 (current limitation to 800 mA). The normal working current of the 3V3_SIM line is approximately 400 mA and the normal working current for the 3V3_DCDCFBX line is approximately 700 mA. Therefore, if one of the currents exceeds their nominal value you can determine in which circuit the overload is situated. If the TV would start up and you have normal picture, there is probably no overload but a problem in the detection circuits.
3. If you do not have two external power supplies, you can do the following: Desolder coils 5U02, 5U03, and 5U04 (you must desolder all three, otherwise the circuit could be damaged), connect an external power supply of 3V3 at the cathode of diode 6U06. Make sure to limit the current of this external supply to approximately 1200 mA. If the supplied current exceeds 1100 mA (approximately normal working current) you can conclude that one of the devices supplied by 3V3 is short-circuited.
4. Another possibility is to force the converter to start up by short-circuiting (and keep short-circuited) resistor 3U25 (B12).
   Caution: Be aware that this can damage the TV. Even if you measure approximately 120 ohm over diode 6U06, there can still be something wrong in the converter itself. By short-circuiting resistor 3U25, the internal protection of the converter is disabled.

5.8.4 Protections

Activating SDM via the “service pads” will overrule the processor-controlled protections, but not the hardware protections. This means, that the A/D-input protections (5 and 8 V) and the I²C “not-acknowledging” info of FBX + EPLD + 3D Comb and the tuner are overruled.

Caution: When doing this, the service technician must know what he is doing, as it could lead to damaging the TV.

Note: It can take up to 30 s before the TV goes to protection!

5.8.5 Repair Tip Table

Table 5-4 Repair tips

Phenomenon	Possible Cause	Repair tip
“F” in right corner of the screen and set is not reacting on remote control. The local keyboard is functioning.	TV is in factory mode.	Press the “VOL-” button on the local keyboard for at least 3 seconds. Switch the TV “off” and back “on”. The TV has now left Factory Mode and functions normally again. When pressing the “MENU” button on the local keyboard for at least 3 seconds, you only leave Factory Mode temporarily. After switching “off” and back “on”, the TV is in Factory Mode again.
No picture, LED blinking at 3 Hz.	Set is in protection due to various causes. For error codes see error-code list.	You have no picture, so: - Read the error buffer via ComPair (error buffer is accessible when set is in protection, ComPair-file will guide you to this). - Read the blinking LED information via standard remote command <mute>**06250x**<ok>. - Or you read the error code sequence via standard remote command <mute>**062500**<ok>. When you have found the error, check the circuitry related to the supply voltage and I²C-communication or the circuitry that triggers the protection.
No picture, LED blinking with code 6-6-6 or 18-18-18.	No communication on slow I²C- or fast I²C-bus.	As processor cannot communicate with one of the 2 buses, the Stand-by-LED spontaneously starts blinking 6-6-6-etc. or 18-18-18-etc... If in the error buffer somewhere is an error 6 or 18, these will have the highest priority starting the mentioned blinking. Measure, dependent of the error on the I²C-bus, which device is loading the bus (use I²C-overview).
No picture, LED blinking with code 1-1-1.	No communication on NVM-I²C bus to the uP.	As the uP cannot communicate with the NVM I²C bus, it spontaneously starts blinking 1-1-1. **Note:** when there is no access to the NVM, a lot of picture setting can go wrong.
No RC-reception. Blue LED does not echo RC-commands.	uP circuitry or RC-receiver is defective.	In case the TV does react on a local keyboard operation, you must check the RC-receiver circuitry (diagram “J”).
Picture is not synchronised.	The sync is derived in the HIP.	Check crystals in the HIP circuit on bad contacts.
Picture is distorted.	Check video-path in Service Default Mode.	Investigate whether there is an error code present in the error buffer. In case there is one, check the I²C-bus and/or supply lines (see overview supply lines). Measure and check signal path Tuner-HIP-FBX-EPLD.
Picture with horizontal stripes.	Pixel Plus processing is malfunctioning	Check functionality on circuitry (B3a, B3b, B3c and B3d) of PICNIC, FEM, EAGLE, COLUMBUS and/or field memories. **Tip:** the whole Pixel Plus chipset can be diagnosed via ComPair.
No NextView (EPG).	IC7012 defective or not powered.	Check circuitry around IC7012 on diagram “B5a”.
No Teletext.	IC7007 defective or not powered.	Check circuitry around IC7007 on diagram “B5a”.
Problems caused by EPG (Electronic Program Guide). The TV set "hangs".	Problems with NexTView EPG broadcasts.	To switch from EPG 2C3 to Teletext guide, press for 4 seconds, simultaneously the MENU button on the TV and digit 0 on the remote. The option settings for NexTView type and FlashRAM will not change.
NexTView EPG is not functioning only Teletext guide.	EPG version 2C3 is switched “off” during production.	To switch from Teletext guide to EPG 2C3, press for 4 seconds, simultaneously the MENU button on the TV and digit 1 on the remote. The option settings for NexTView type and Flashram will not change.
Various symptoms, due to missing local supply voltage.	An interrupted fuse, NFR-resistor or connection.	When no symptom or error code leads you to a specific circuitry, use the supply lines overview (see supply lines overview), for a quick scan of all supply lines.
No sound at the speakers but sound at monitor out.	Possible problem with the class D amplifier	Check circuitry around IC7700 on diagram “SA3” (LCD) or “C” (PDP).
No sound at the speakers but sound at monitor out.	Sound enable from OTC is HIGH, speakers are muted	Check pin 95 of OTC on diagram “B5a”.
No sound at the speakers not at monitor out, but sound at SCART 1 output.	POR line is low, anti plop circuit mutes the sound	Check pin 8 on connector 1739 on audio panel. Diagram “C” for PDP sets and diagram “SA3” for LCD sets
No sound from any output (except headphone)	Reset audio is high or MSP is not properly reset	Check pin 16 of MSP (diagram “B6a”) and circuitry around MSP.
No sound from the tuner but sound from any other input.	Problem with the delay line (PDP sets only)	Check circuitry on diagram “B6d”.

5.9 Software Downloading

In this chassis, you can **upgrade** the main software via ComPair without removing the back cover of the TV (it is possible that early production sets don’t have a hole in the back plate, in this case you have to remove the back plate). The switch, which is needed for the software downloading procedure, can be reached through a gap in the back cover or the SSB shielding. The switch can be operated with a toothpick or something like that. Make sure that you do not damage the PWB with sharp objects. You can find more information on how this procedure works in the ComPair file. It is possible that not all sets are equipped with the hardware, needed to make software upgrading possible. To speed up the programming process the firmware of the ComPair interface can be upgraded. See paragraph “How To Order” for the order number.

Personal Notes:

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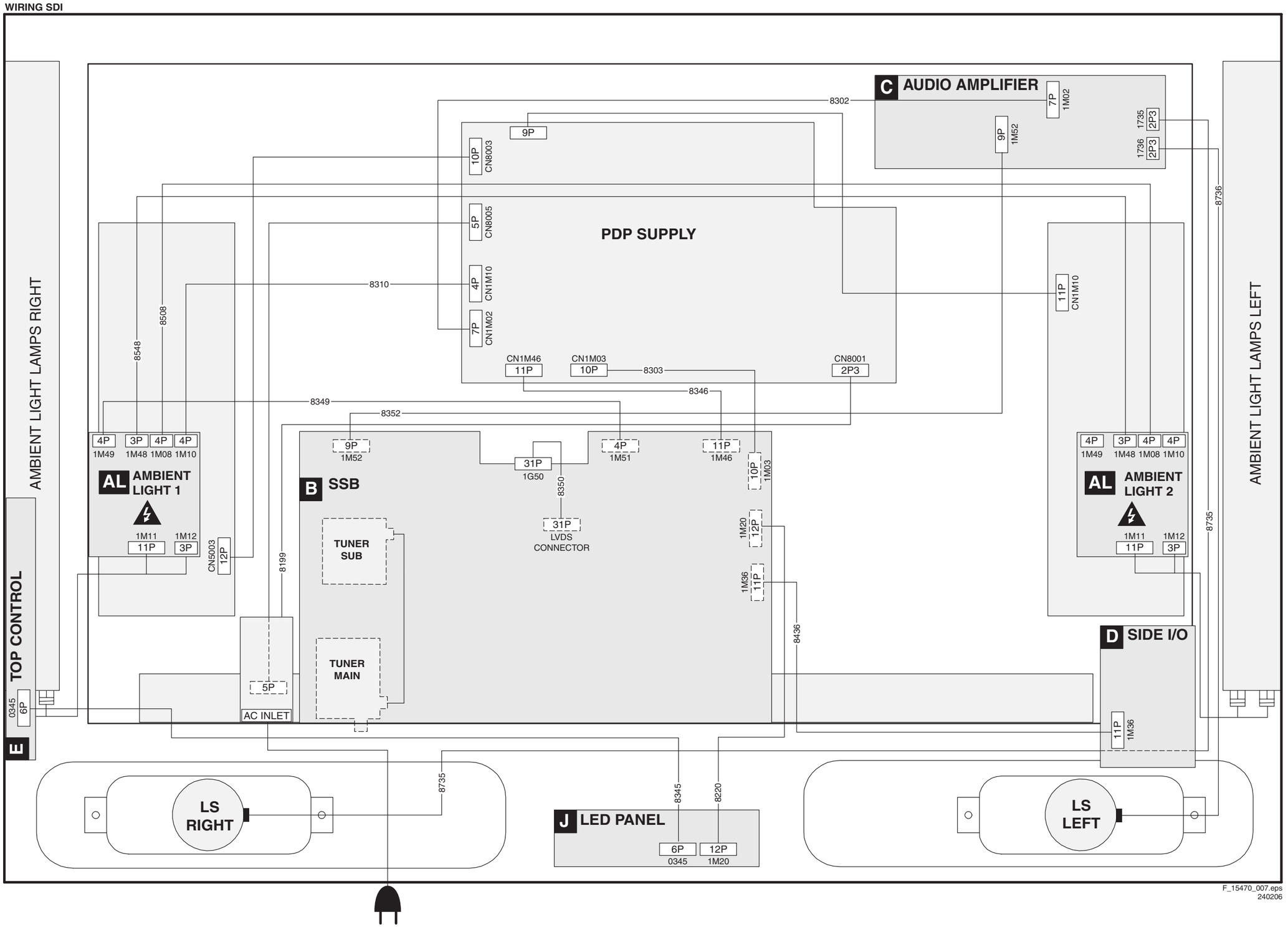
6. Block Diagrams, Testpoint Overviews, and Waveforms

Wiring Diagram 42” SDI

WIRING SDI



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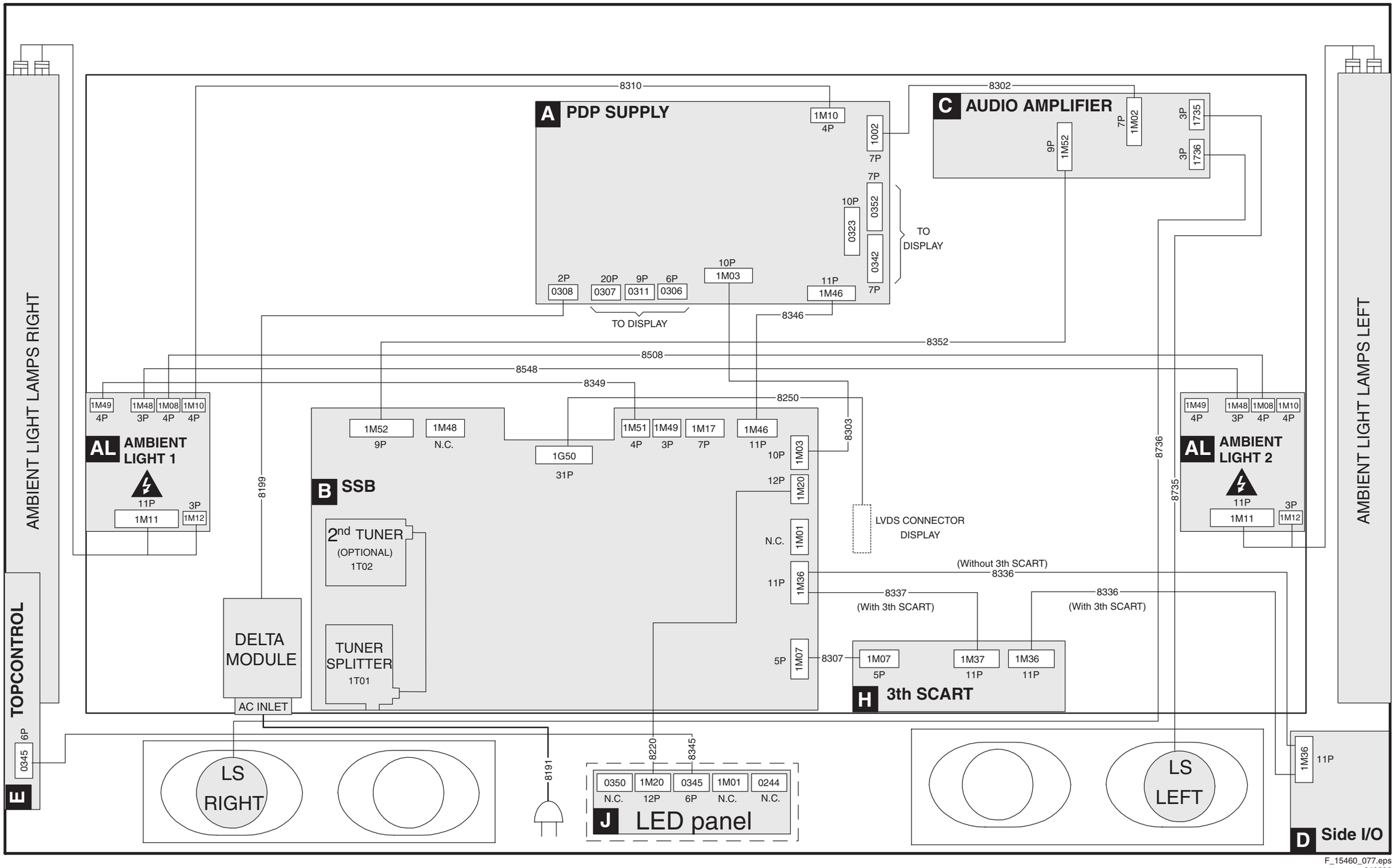
Wiring Diagram 42” FHP Step

WIRING 42” FHP



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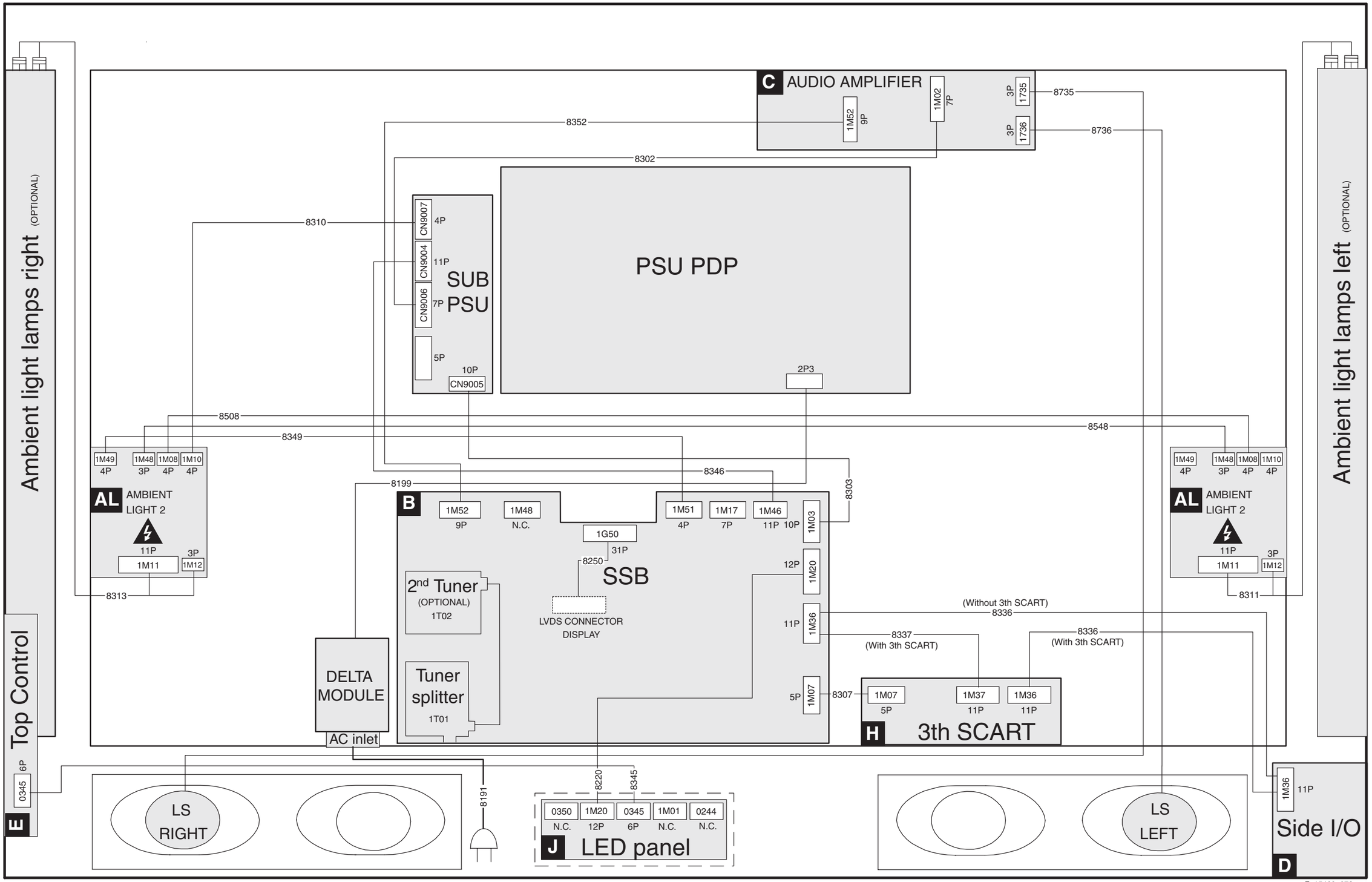
Wiring Diagram 50” SDI Step

WIRING 50” SDI



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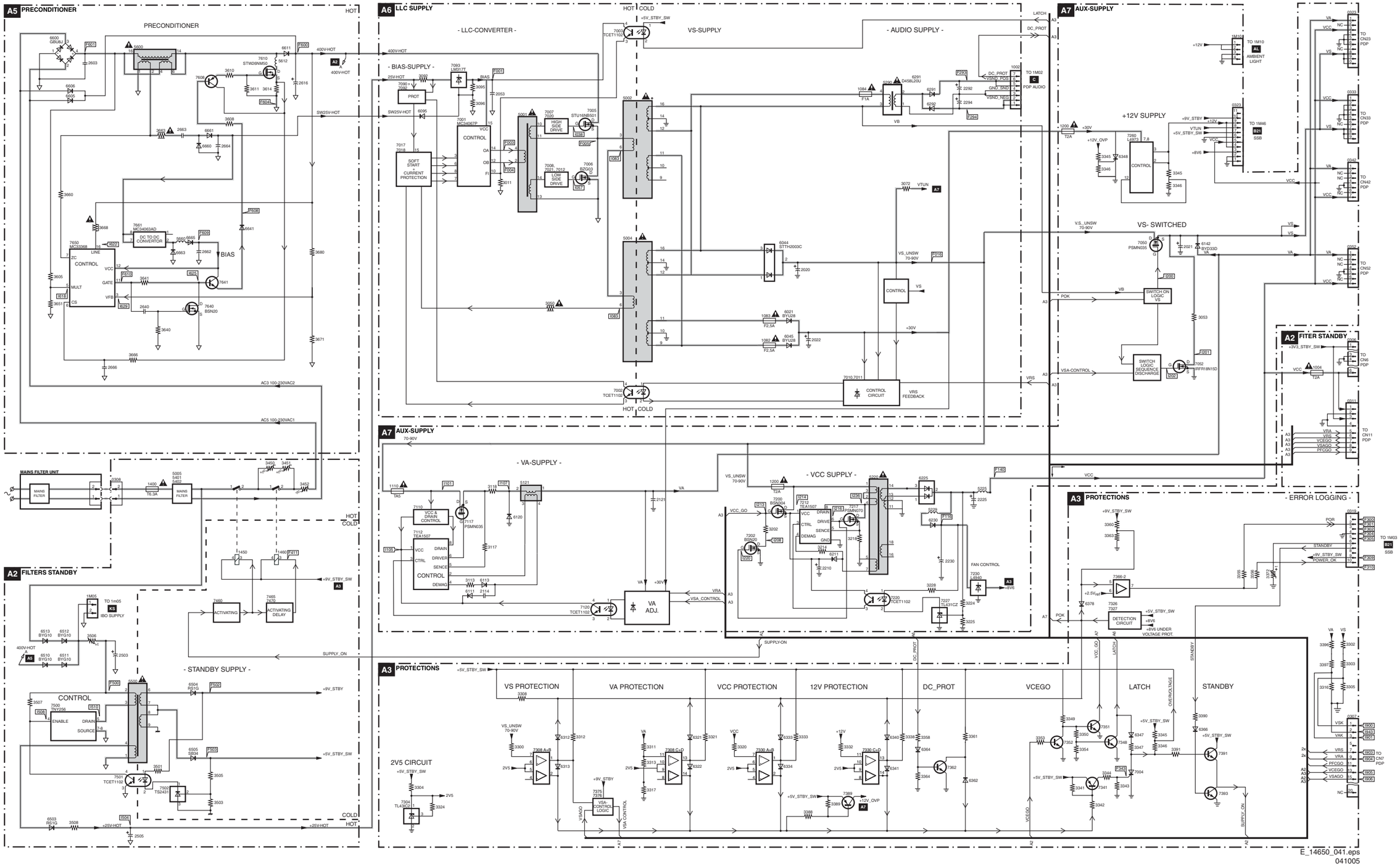
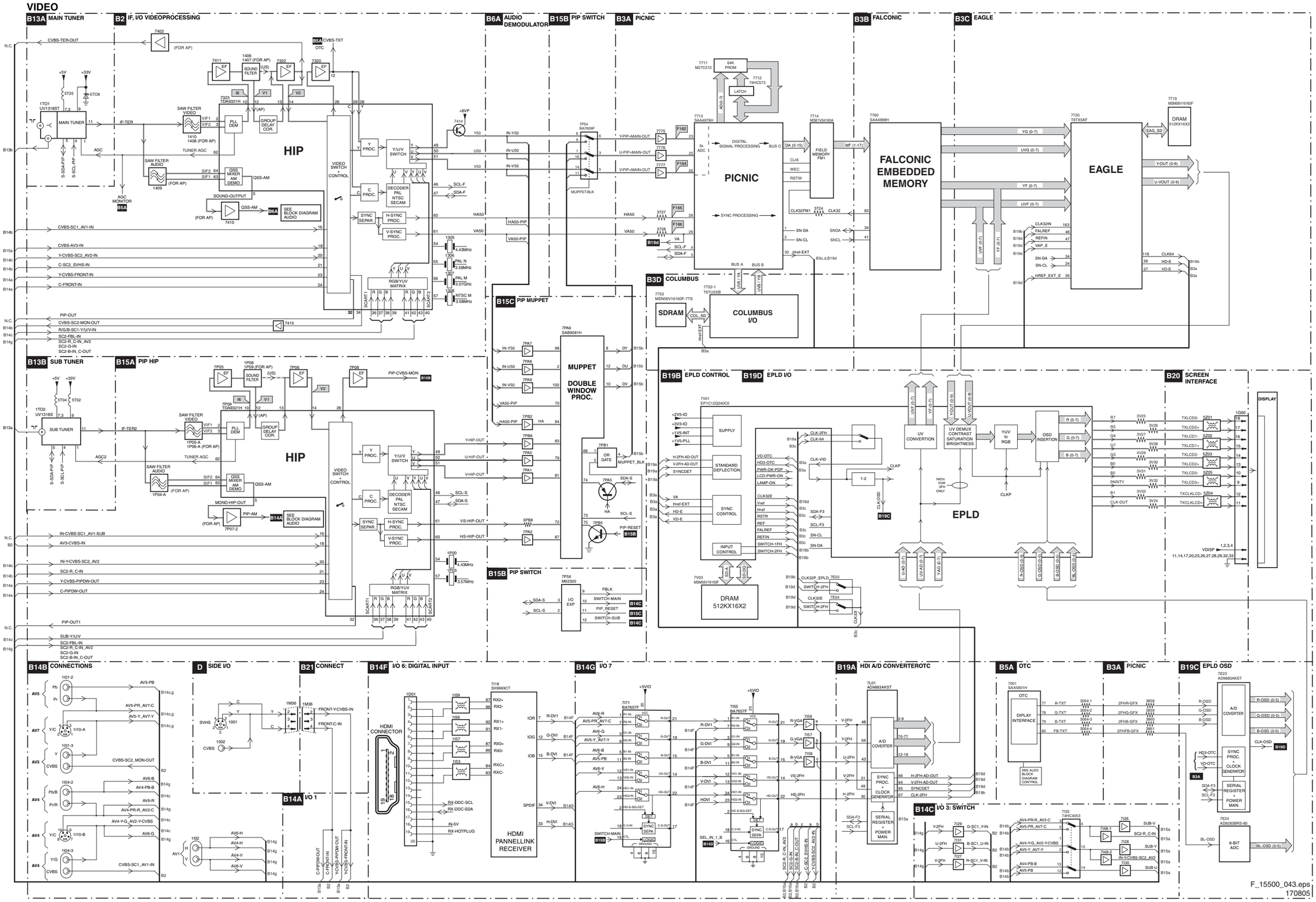
Block Diagram Supply 42” FHP

SUPPLY 42” FHP

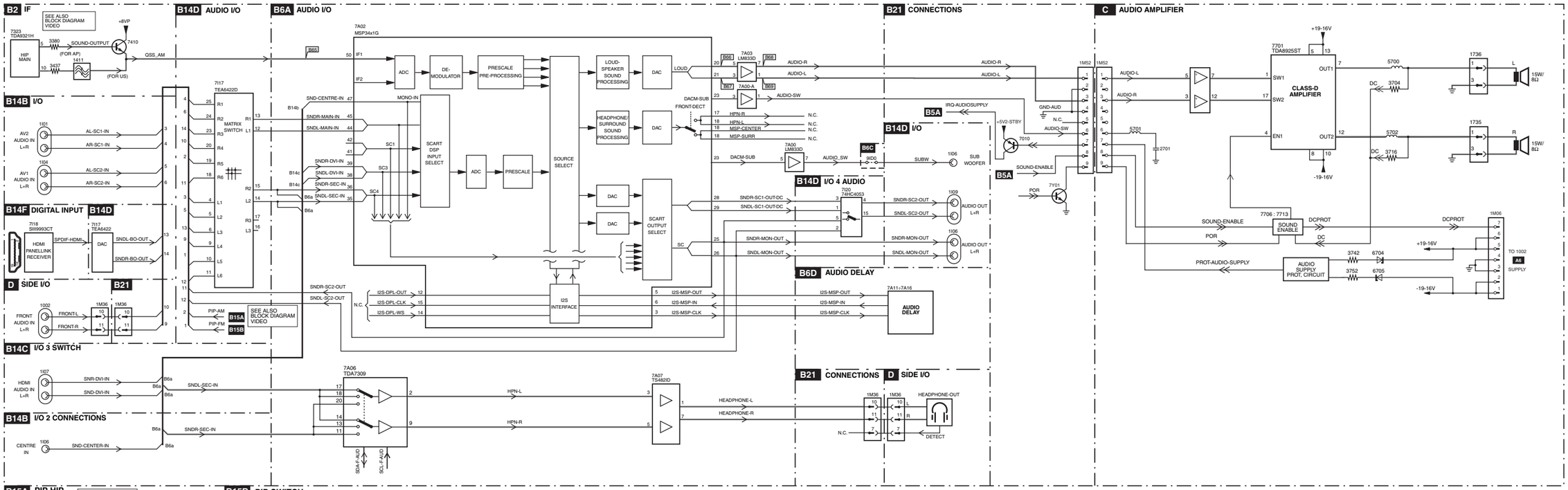


Block Diagram Video

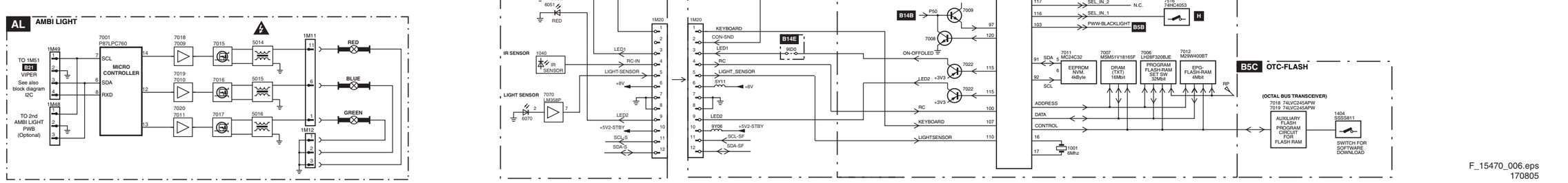


Block Diagram Audio

AUDIO



CONTROL



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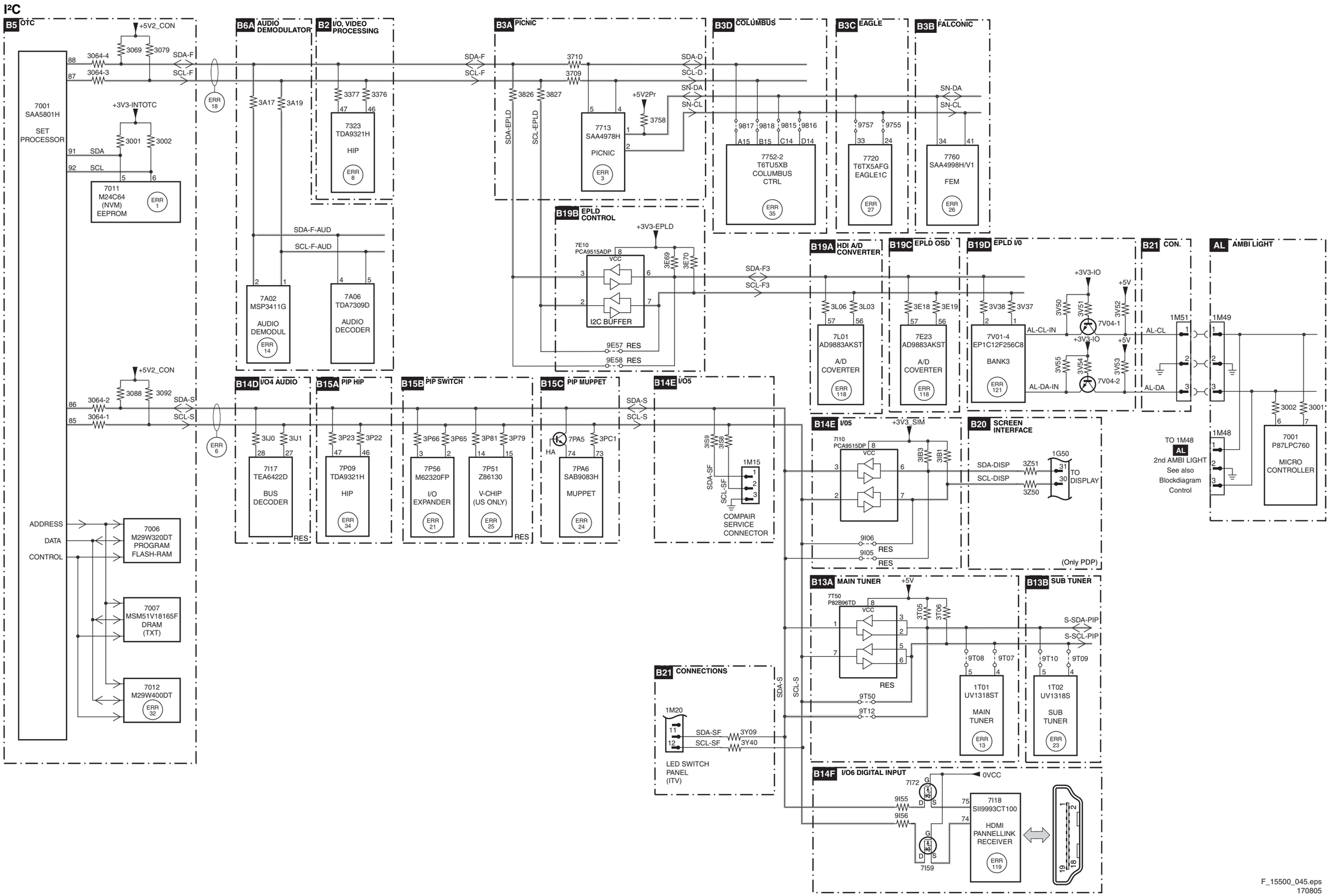
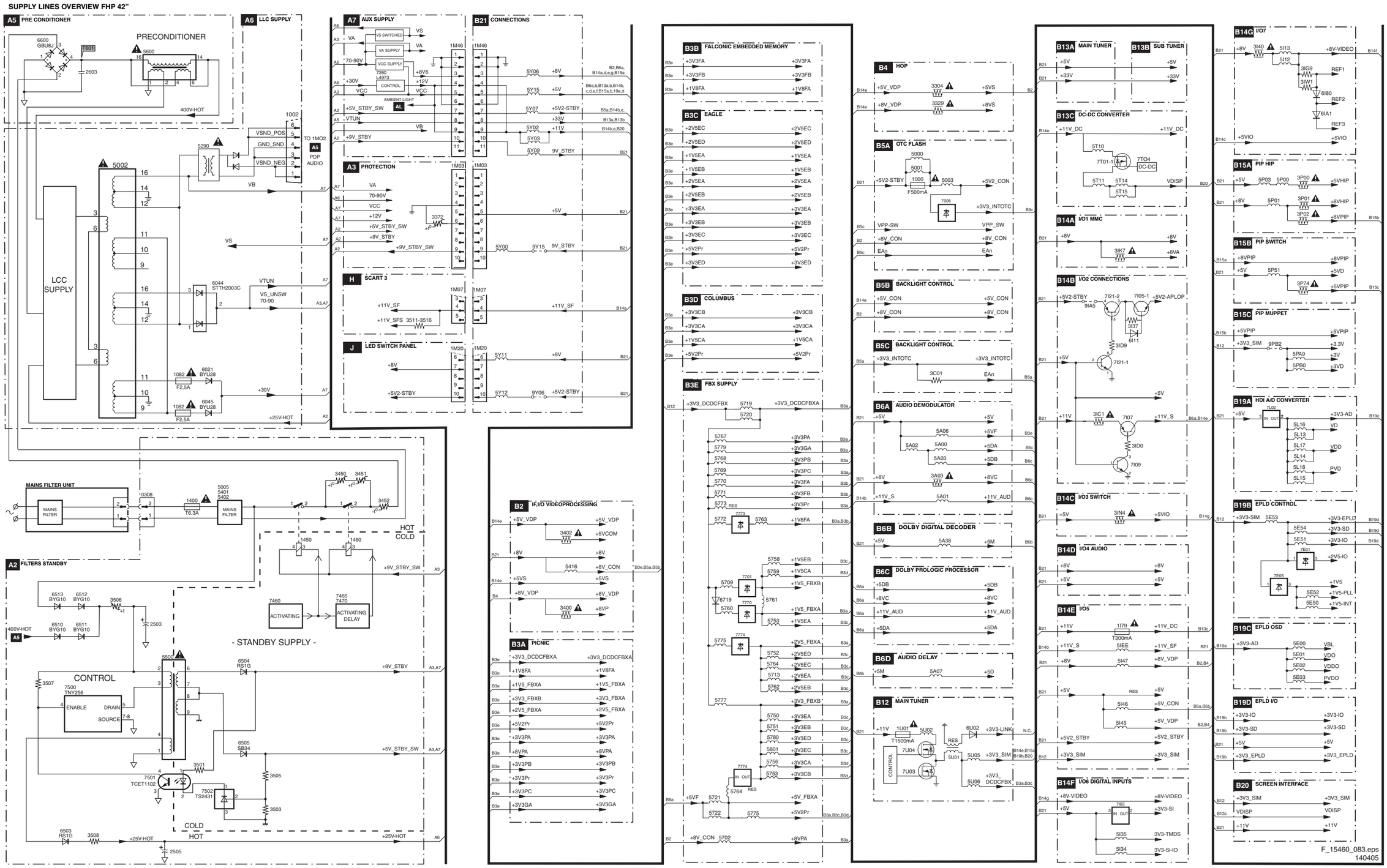
I2C Overview

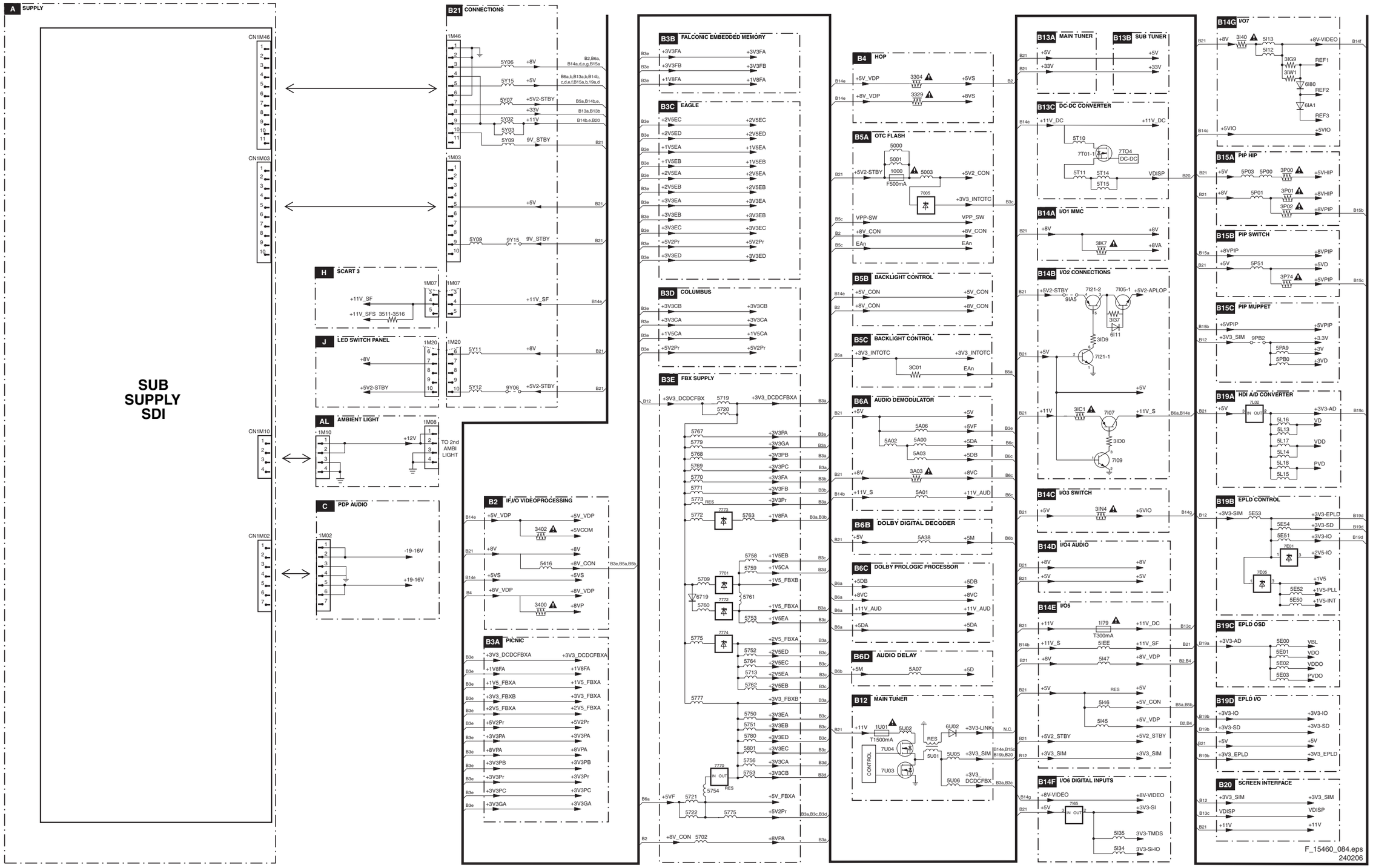


Supply Lines Overview (FHP)



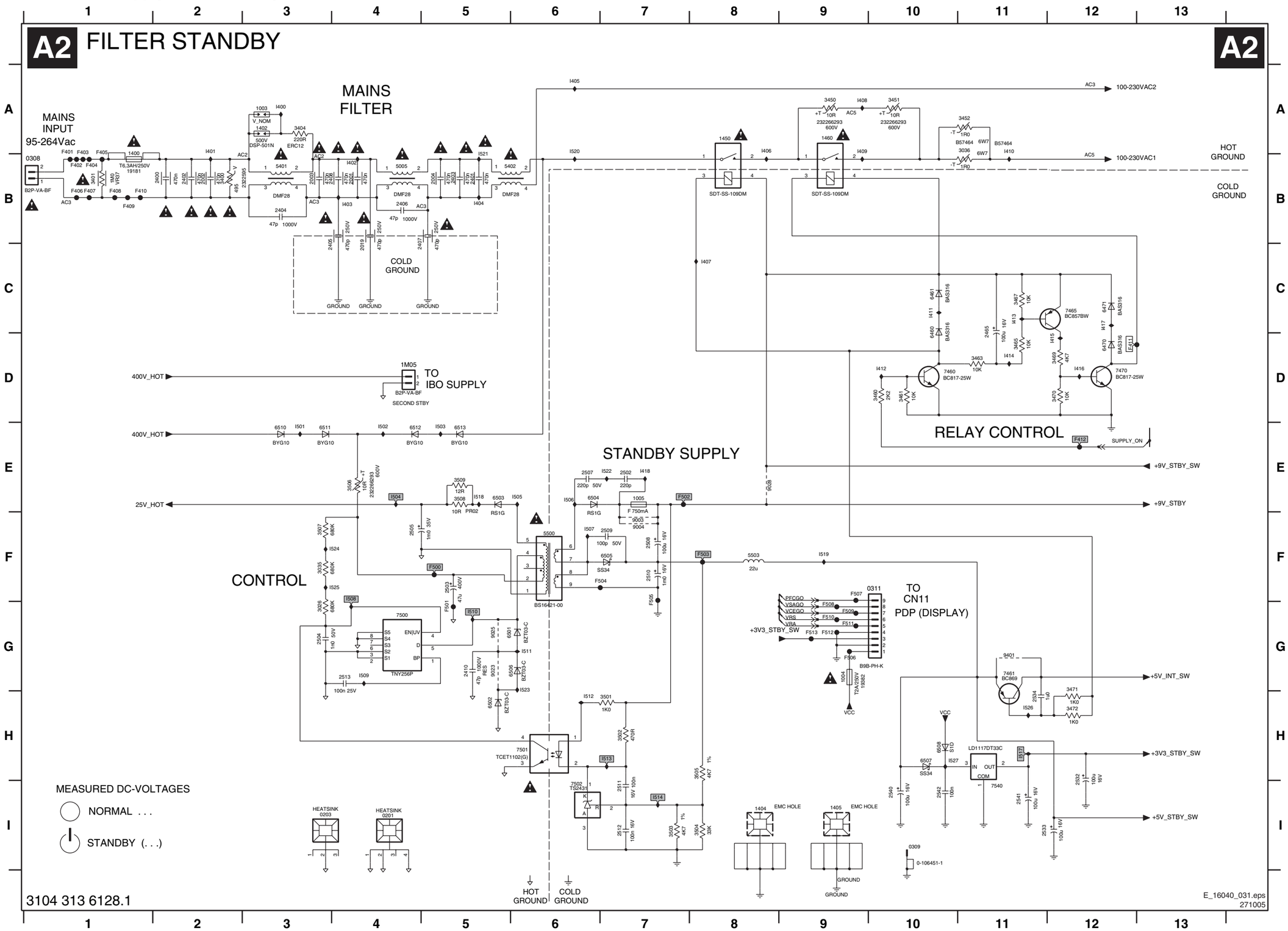
Supply Lines Overview (SDI)

SUPPLY LINES OVERVIEW SDI 42" / 50"



7. Circuit Diagrams and PWB Layouts

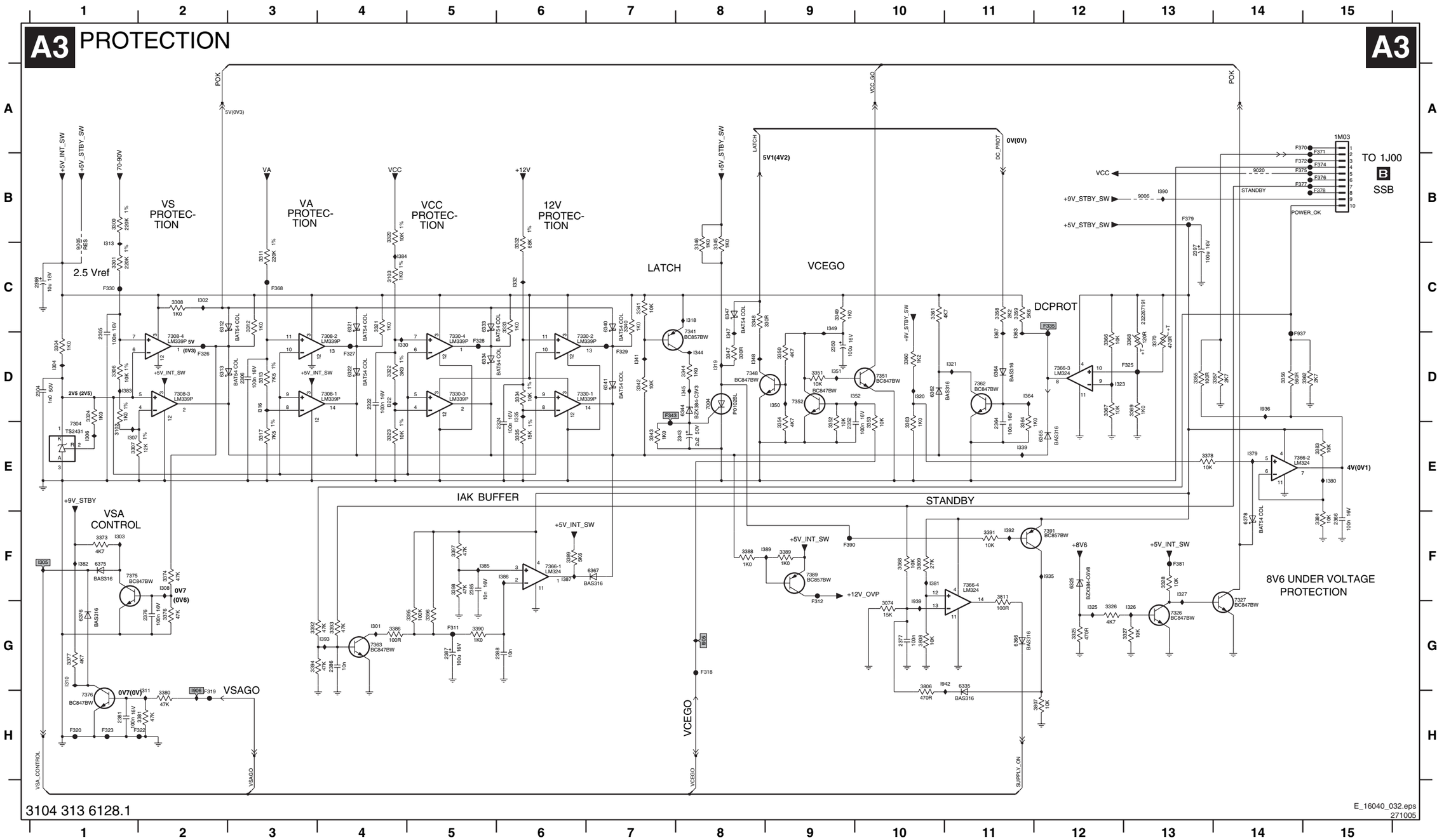
PDP FHP Supply: Filter Standby



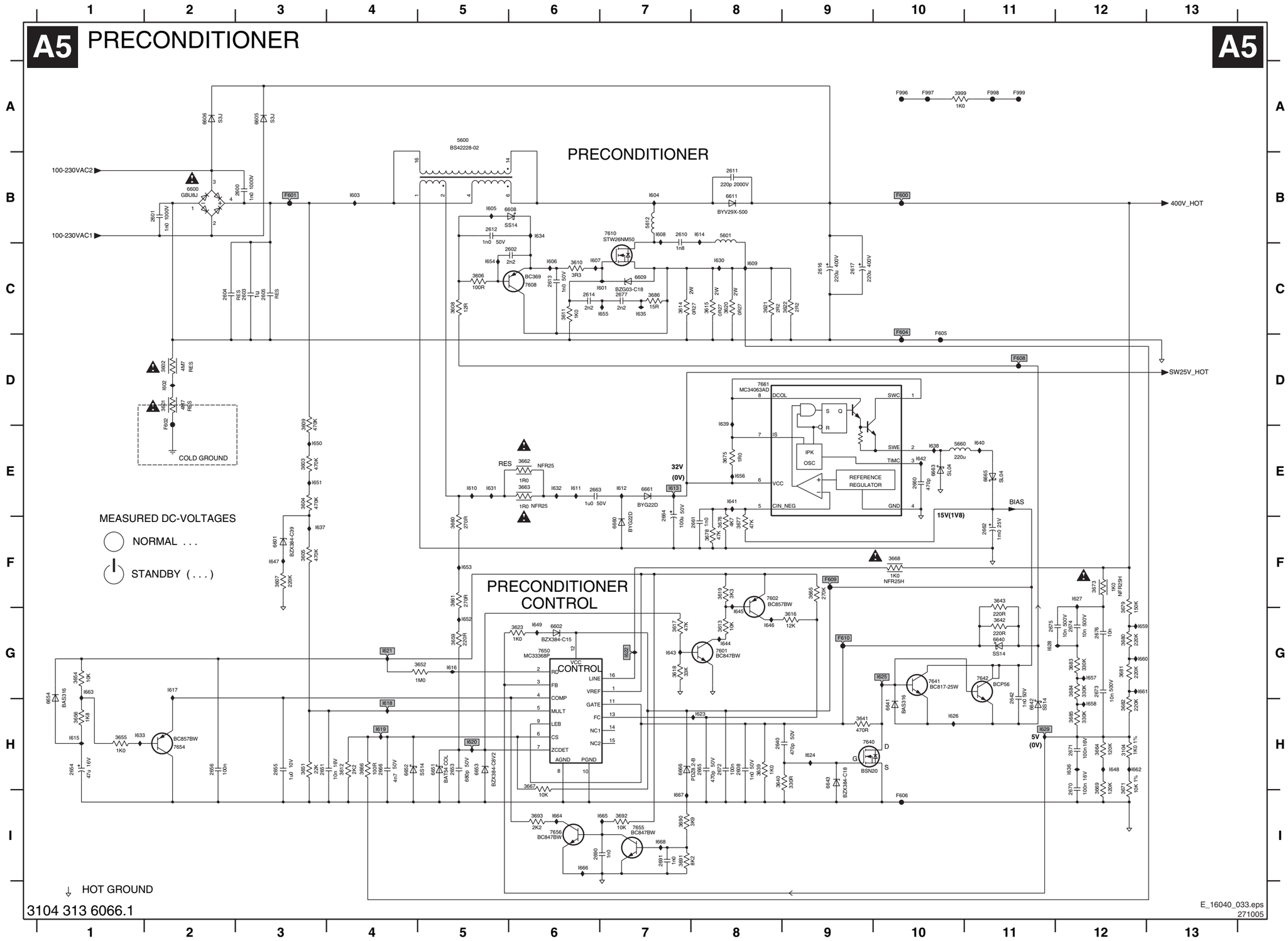
0201 I4	7465 C12	2542 I10	I409 A9
0203 I3	7470 D12	3026 G3	I410 A11
0308 B1	7500 G4	3035 F3	I411 C10
0309 I10	7501 H6	3036 A11	I412 D10
0311 F10	7502 I6	3400 B2	I413 C11
1003 A3	7540 I11	3401 B1	I414 D11
1004 G9	9003 F7	3404 A3	I415 D12
1005 E7	9004 F7	3450 A9	I416 D12
1400 B1	9023 G5	3451 A10	I417 C12
1402 A3	9025 G5	3452 A11	I418 E7
1404 I8	9028 E8	3460 D10	I501 E3
1405 I9	9401 G11	3461 D10	I502 E4
1450 A8	F401 A1	3463 D11	I503 E5
1460 A9	F402 B1	3465 D11	I504 E4
1M05 D4	F403 B1	3467 C11	I505 E6
2001 B4	F404 B1	3469 D12	I506 E6
2002 B2	F405 B1	3470 D12	I507 F6
2003 B3	F406 B1	3471 G12	I508 F4
2004 B5	F407 B1	3472 H12	I509 G4
2019 C4	F408 B1	3501 H7	I510 G5
2400 B2	F409 B1	3502 H7	I511 G6
2401 B5	F410 B1	3503 I7	I512 H6
2402 B2	F411 D12	3504 I8	I513 H7
2403 B5	F412 E12	3505 H8	I514 I7
2404 B3	F500 F5	3506 E4	I517 H11
2405 C4	F501 G5	3507 F3	I518 E5
2406 B4	F502 E7	3508 E5	I519 E5
2407 C5	F503 F8	3509 E5	I520 A6
2408 B4	F504 F7	5005 B4	I521 A5
2410 G5	F505 F7	5401 B3	I522 E7
2465 C11	F506 G9	5402 B5	I523 G6
2502 E7	F507 F9	5500 F6	I524 F4
2503 F5	F508 G9	5503 F8	I525 F4
2504 G3	F509 G9	6460 C10	I526 H11
2505 F4	F510 G9	6461 C10	I527 H10
2507 E6	F511 G9	6470 D12	
2508 F7	F512 G9	6471 C12	
2509 F7	F513 G9	6501 G6	
2510 F7	I400 A3	6502 H5	
2511 I7	I401 A2	6503 E5	
2512 I7	I402 B4	6504 E6	
2513 G4	I403 B4	6505 F7	
2532 H12	I404 B5	6506 G6	
2533 I11	I405 A6	6507 H10	
2534 H11	I406 A8	6508 H10	
2540 I10	I407 C8	6510 E3	
2541 I11	I408 A9	6511 E3	
		6512 E4	
		6513 E5	
		7460 D10	
		7461 G11	

PDP FHP Supply: Protection

1M03 A15	2364 E11	2397 C13	3306 D1	3322 D4	3334 D6	3347 D8	3356 D14	3366 D12	3378 E13	3391 F11	3806 G10	6325 F12	6364 D11	7308-1 D4	7330-4 D5	7366-3 D12	F311 G5	F327 D4	F372 B14	F937 D14	I310 G1	I323 D12	I344 D8	I364 D11	I386 F6	I936 D14
2304 D1	2366 F15	2398 C1	3307 E1	3323 E4	3335 E6	3348 C8	3357 D14	3367 D12	3380 H2	3392 G3	3807 H12	6333 C5	6365 E12	7308-2 D4	7341 C8	7366-4 F11	F312 G9	F328 D5	F374 B15	I301 G4	I311 G2	I325 G12	I345 D8	I367 D11	I387 F6	I939 G10
2305 D1	2376 G2	3068 F10	3308 C2	3324 D1	3340 C7	3349 G3	3358 C11	3368 D13	3381 H2	3393 G4	3808 G10	6334 D5	6366 G11	7308-3 D2	7348 D8	7375 F1	F318 G8	F329 D7	F375 B14	I302 C2	I313 C1	I326 G13	I347 D8	I378 E15	I389 F9	I942 G11
2306 D3	2377 G10	3074 G10	3311 C3	3325 G12	3341 C7	3350 D9	3359 C11	3369 D13	3383 E15	3394 G3	3809 F10	6335 G11	6367 F7	7308-4 D2	7351 D10	7376 H1	F319 H2	F330 C1	F376 B15	I303 F1	I316 D3	I327 F13	I348 D8	I380 E15	I390 B13	
2322 D4	2381 H1	3102 E1	3312 C3	3326 G12	3342 D7	3351 D9	3360 D10	3370 D13	3384 F15	3395 G5	3811 F11	6340 C7	6375 F1	7326 G13	7352 D9	7389 F9	F320 H1	F335 C12	F377 B14	I304 D1	I318 C8	I330 D4	I349 C9	I381 F10	I392 F10	
2324 E6	2385 F5	3103 C4	3313 D3	3327 G13	3343 E7	3352 E9	3361 C10	3373 F1	3386 G4	3396 G5	6312 C2	6341 D7	6376 G1	7327 G14	7362 D11	7391 F12	F322 H2	F343 D7	F378 B15	I305 F1	I319 D8	I332 C6	I350 D9	I382 F1	I393 F4	
2343 E8	2386 G4	3300 B1	3317 E3	3328 F13	3344 D8	3353 E10	3362 D15	3374 F2	3388 F8	3397 F5	6313 D2	6344 D8	6378 F14	7330-1 D6	7363 G4	9005 C1	F323 H1	F368 C3	F379 B13	I306 E1	I320 D10	I335 D6	I351 D9	I383 D1	I905 G8	
2350 D9	2387 G5	3301 C1	3320 B4	3332 C6	3345 C8	3354 E9	3363 E10	3376 G2	3389 F9	3398 F5	6321 C4	6347 C8	7004 D8	7330-2 D6	7366-1 F6	9006 B13	F325 D13	F370 A14	F381 F13	I307 E1	I321 D11	I339 E11	I352 D10	I384 C4	I906 G2	
2352 E9	2388 G6	3304 D1	3321 C4	3333 C6	3346 C8	3355 D13	3364 E11	3377 G1	3390 G5	3399 F6	6322 D4	6362 D10	7304 E1	7330-3 D5	7366-2 E14	9020 B14	F326 D2	F371 B15	F390 F9	I308 F2	I322 D4	I341 D7	I363 D11	I385 F5	I935 F12	



PDP FHP Supply: Pre Conditioner



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2601 B2	3691 I7	I644 G8
2602 C6	3692 I7	I645 G8
2603 C3	3693 I6	I646 G8
2604 C2	3999 A10	I647 F3
2605 C3	5600 A5	I648 H12
2608 H8	5601 B8	I649 G6
2610 B7	5612 B7	I650 E3
2611 B8	5660 E10	I651 E3
2612 B5	6600 B2	I652 G5
2613 C6	6601 F3	I653 F5
2614 C6	6602 G6	I654 C5
2616 C9	6605 A3	I655 C7
2617 C9	6606 A2	I656 E8
2640 H8	6608 B6	I657 G12
2642 G11	6609 C7	I658 H12
2651 H3	6611 B8	I659 G12
2653 H5	6640 G11	I660 G12
2654 H1	6641 H10	I661 G12
2655 H3	6642 H11	I662 H12
2656 H2	6643 H9	I663 G1
2660 E10	6651 H5	I664 I6
2661 F8	6652 H4	I665 I7
2662 F11	6653 H5	I666 I6
2663 E6	6654 G1	I667 I7
2664 E7	6660 F7	I668 I7
2665 H8	6661 E7	
2666 H4	6663 E10	
2670 H12	6665 E11	
2671 H12	6666 H7	
2672 H8	7601 G8	
2673 G12	7602 F8	
2674 G12	7608 C6	
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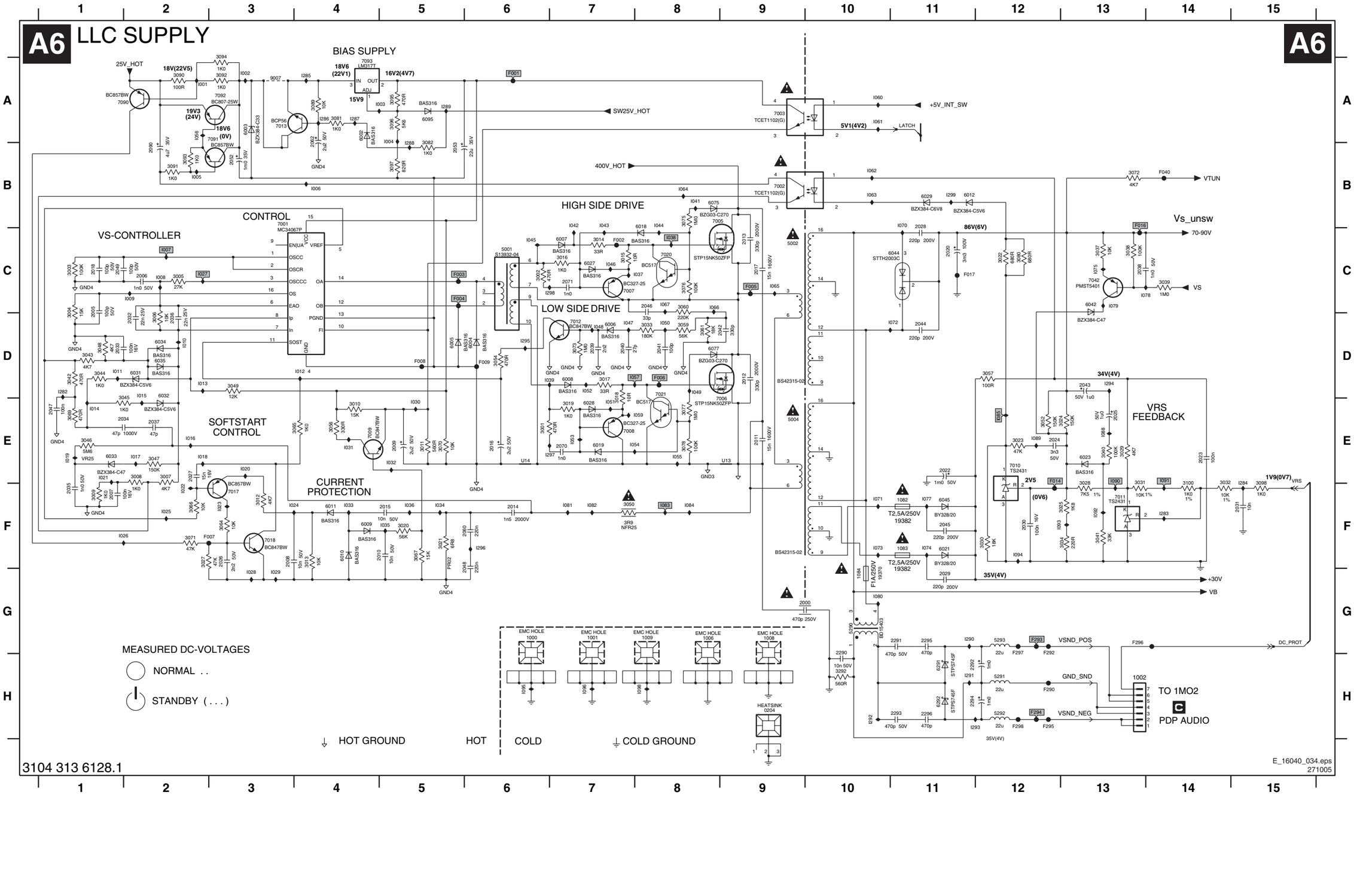

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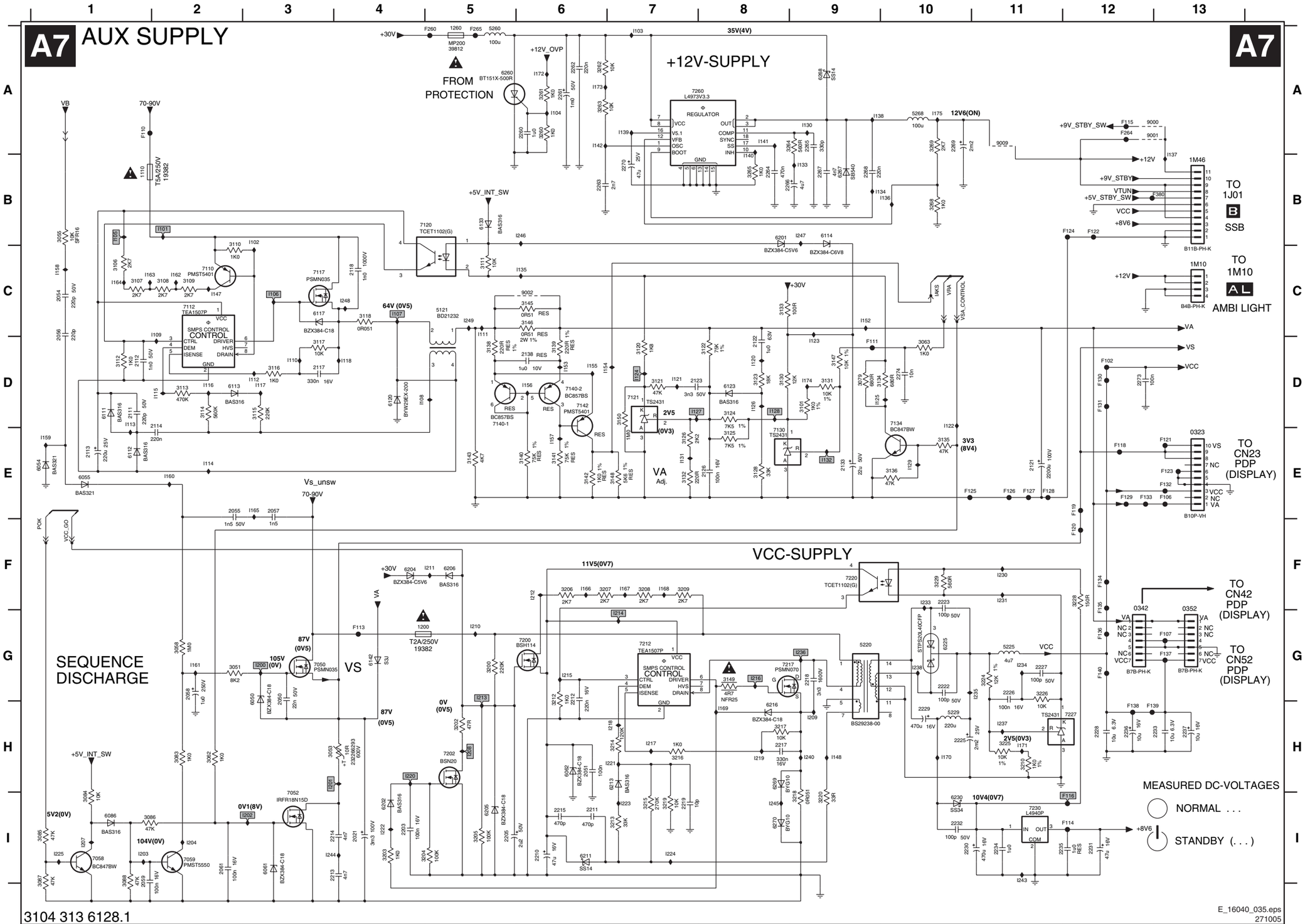

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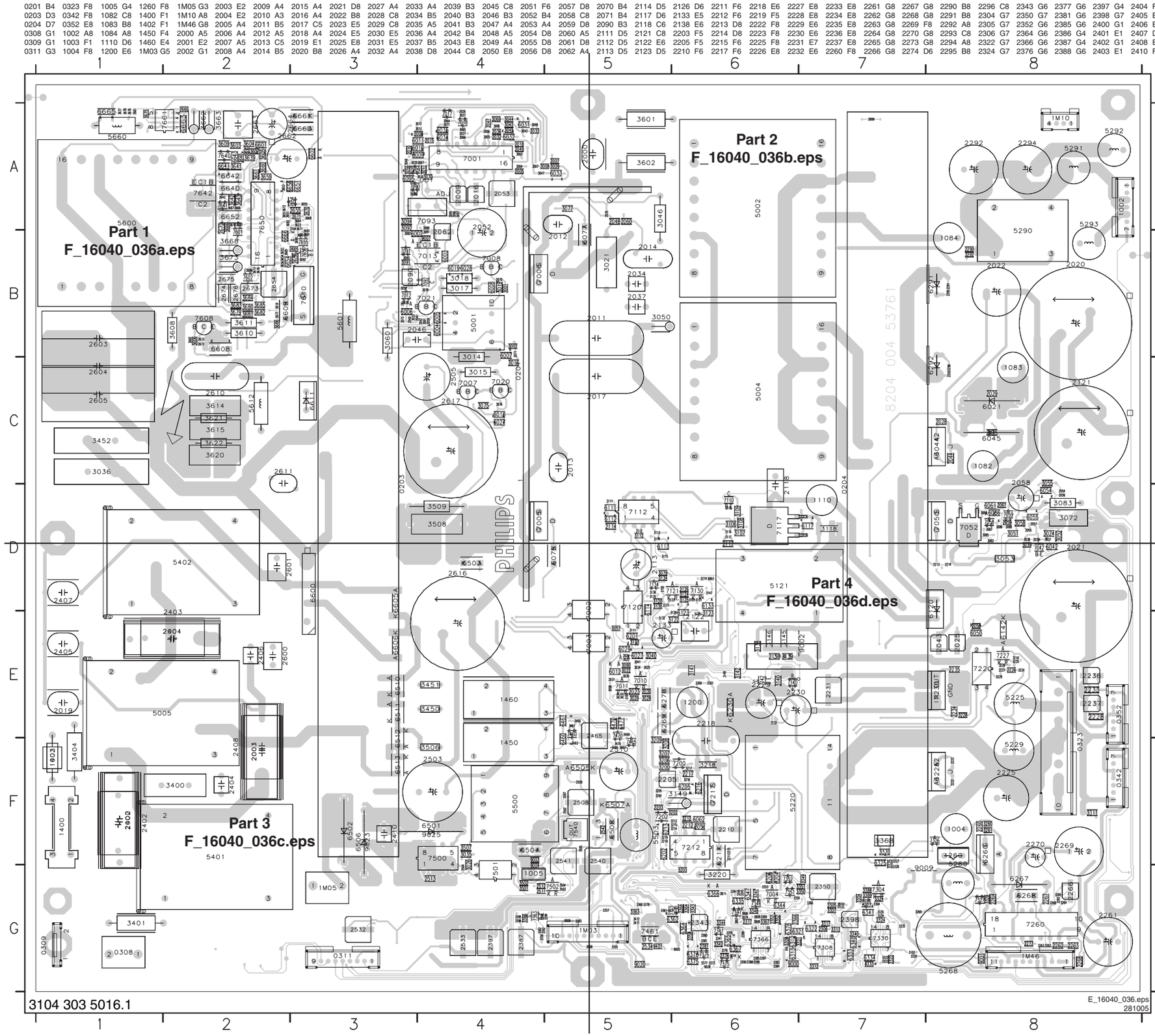
Layout PDP FHP Supply (Overview Top Side)



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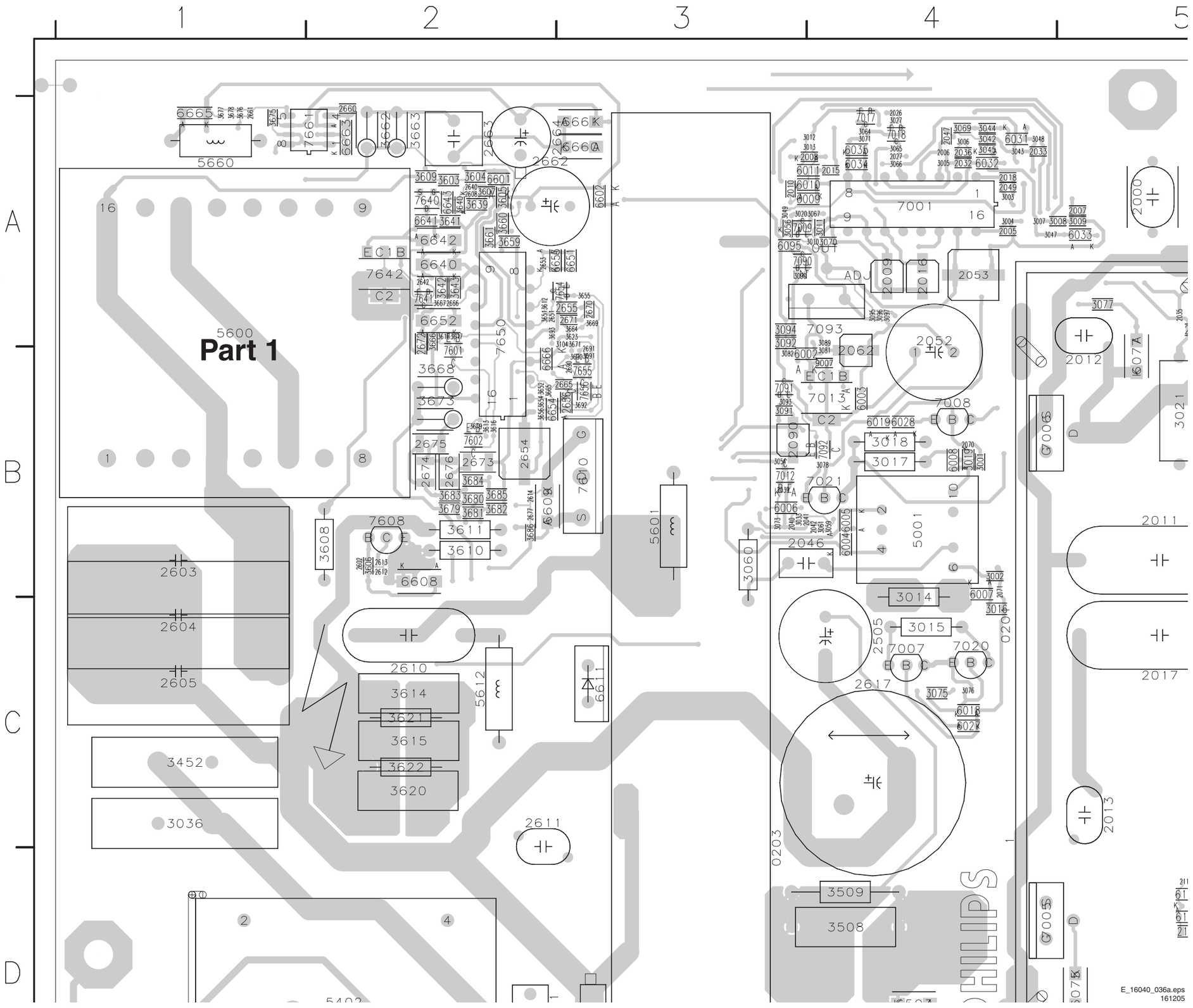
3055 C8 3228 E8 3602 A5 6035 A4 7020 C4

Layout PDP FHP Supply (Part 1 Top Side)



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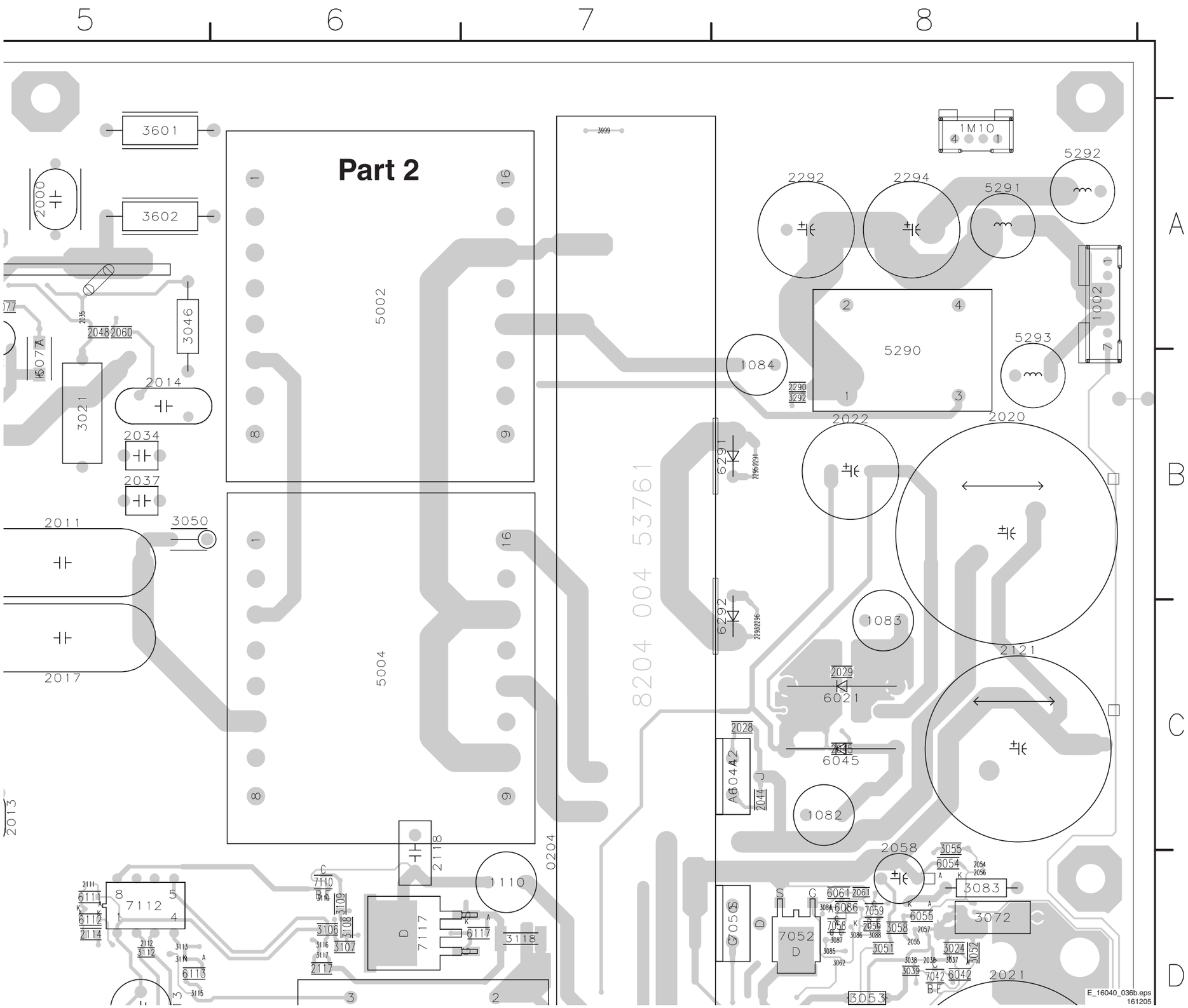
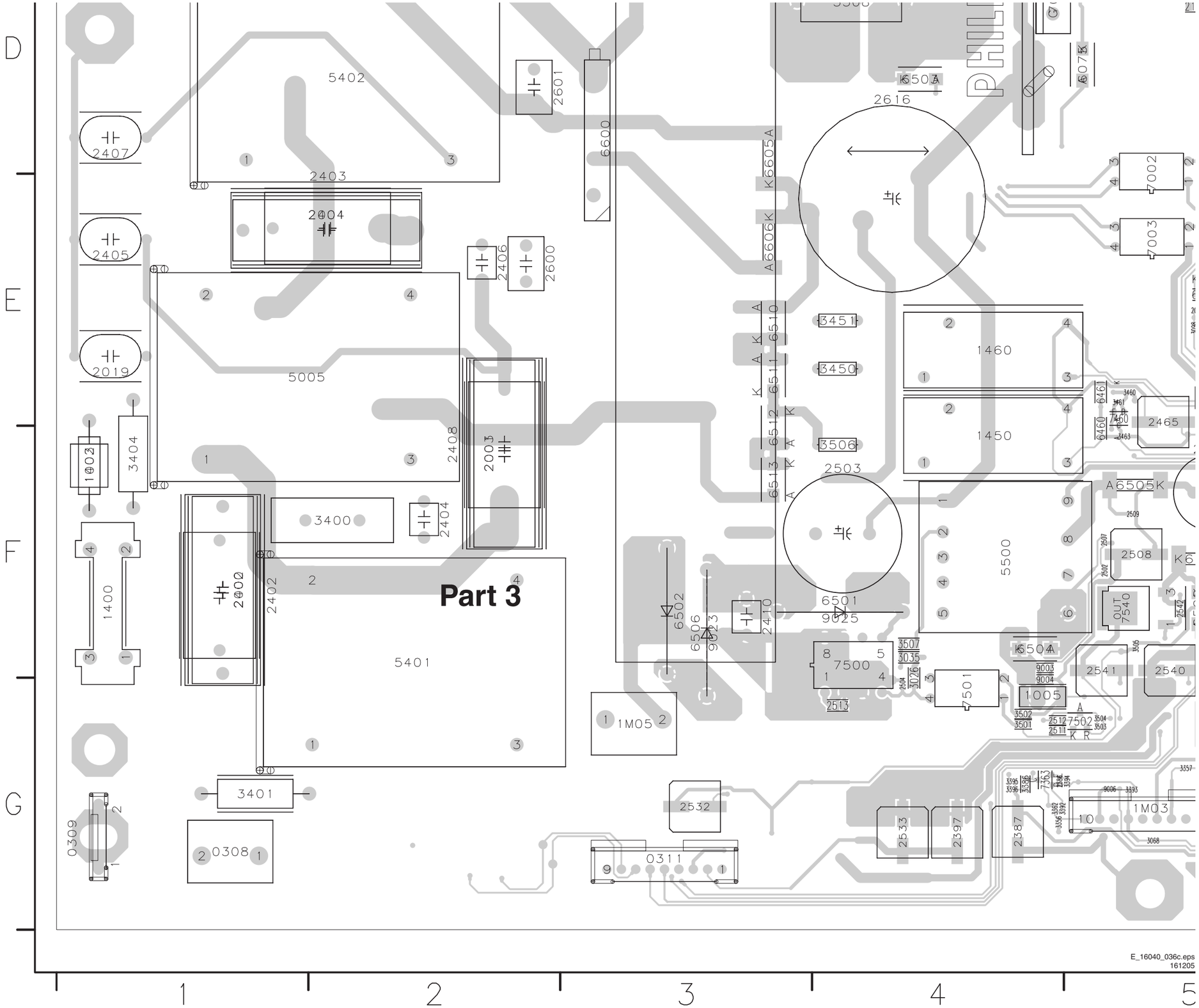


Layout PDP FHP Supply (Part 3 Top Side)



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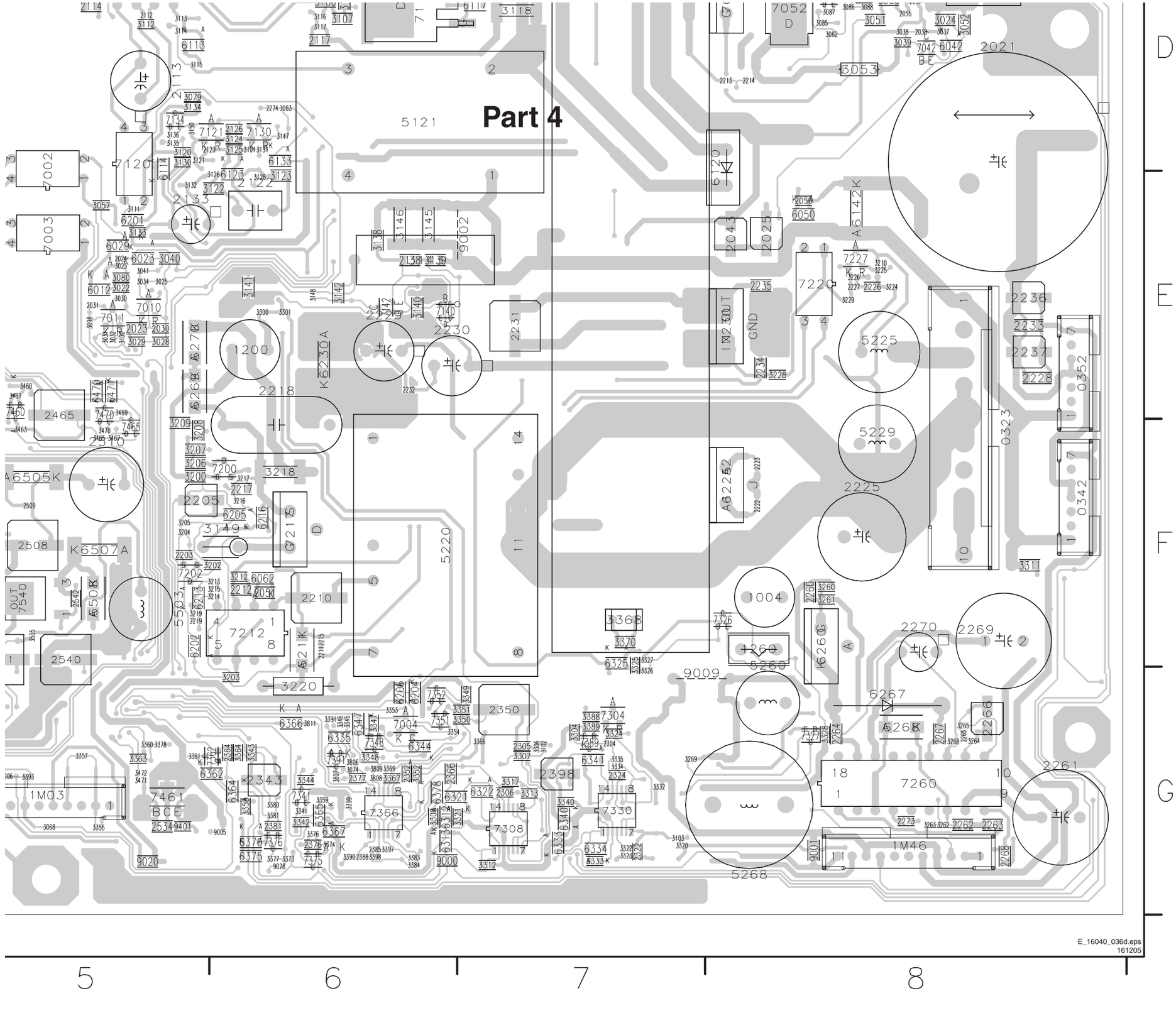
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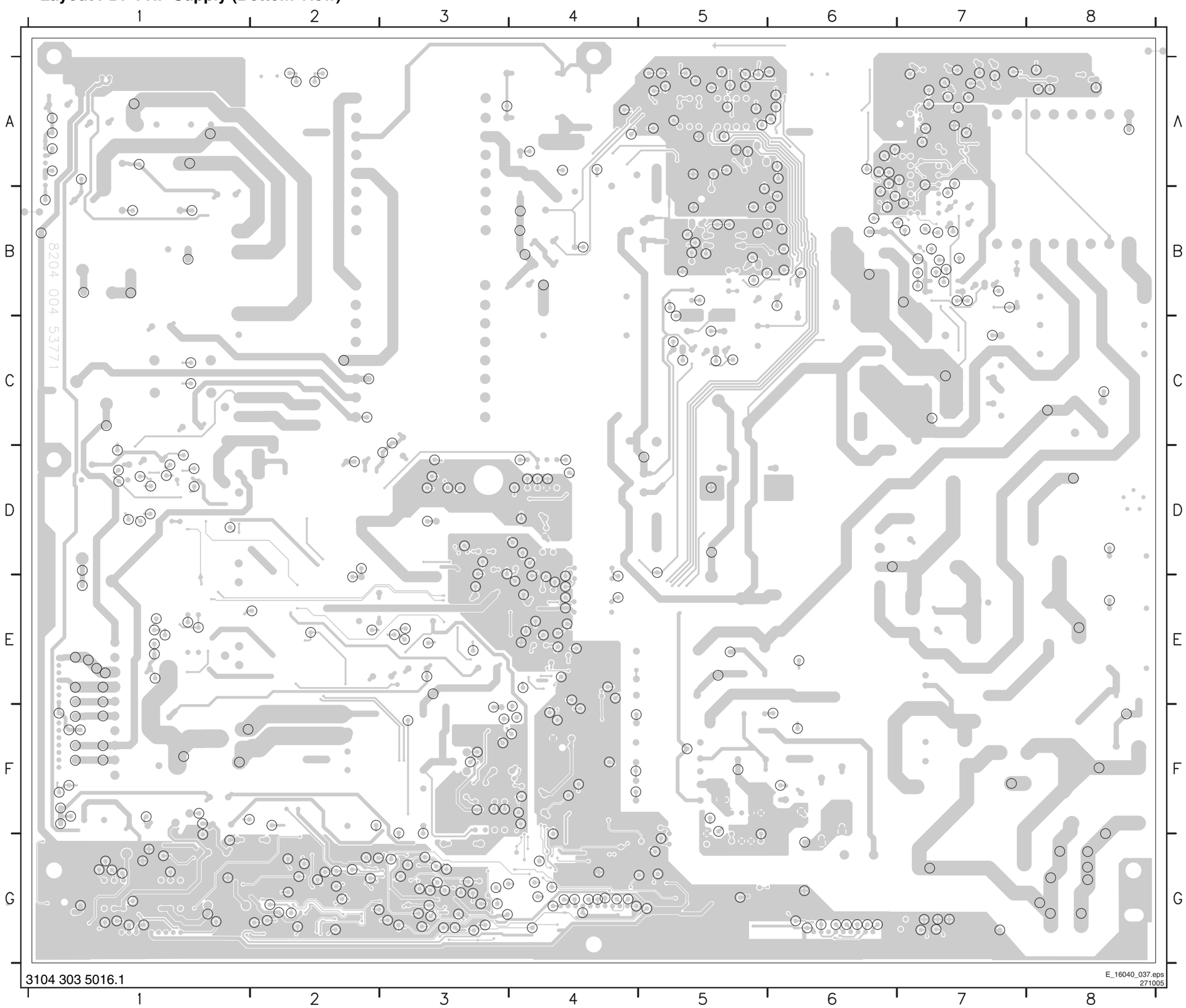
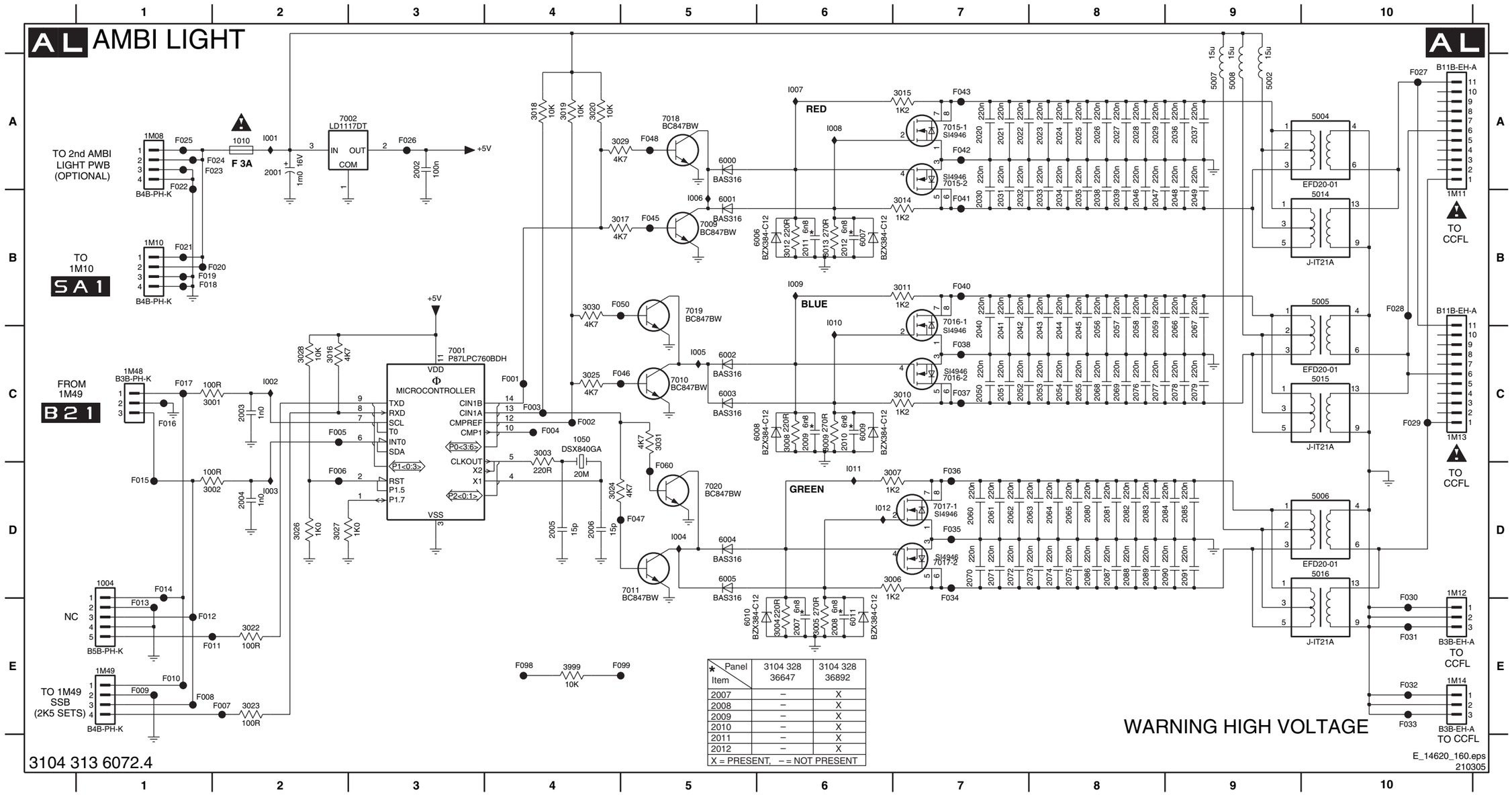
Layout PDP FHP Supply (Bottom View)



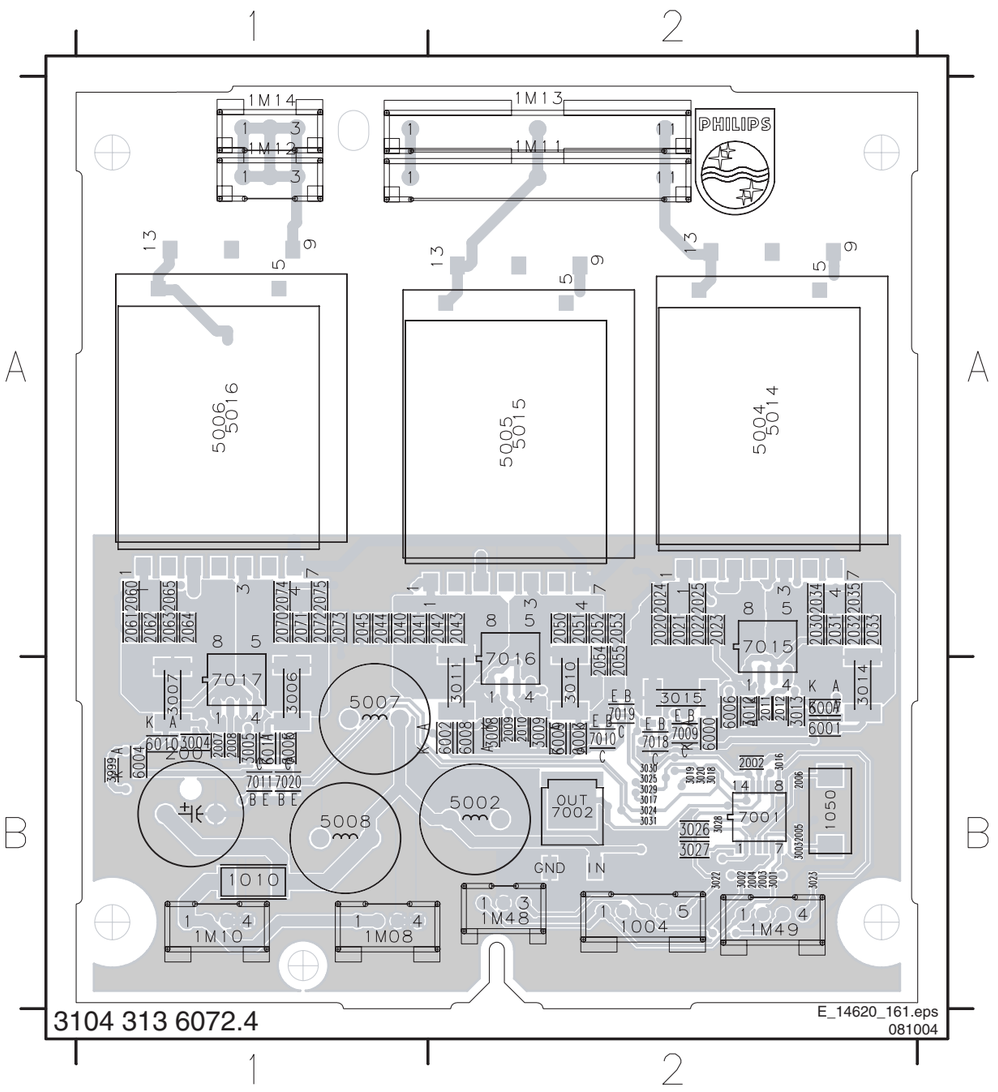
Ambi Light (One Panel)

1004 D1	2002 A3	2021 A7	2033 B8	2045 C8	2057 C8	2069 C8	2081 D8	3002 D1	3014 B7	3027 D2	5014 B10	6009 C6	7017-1 D7	F008 E1	F020 B2	F032 E10	F046 C5	I006 B5
1010 A2	2003 C2	2022 A7	2034 B8	2046 B8	2058 C8	2070 D7	2082 D8	3003 C4	3015 A7	3028 C2	5015 C10	6010 E5	7017-2 D7	F009 E1	F021 B1	F033 E10	F047 D5	I007 A6
1050 C4	2004 D2	2023 A8	2035 B8	2047 B8	2059 C8	2071 D7	2083 D8	3004 E6	3016 C2	3029 A4	5016 D10	6011 E6	7018 A5	F010 E1	F022 A1	F034 E7	F048 A5	I008 A6
1M08 A1	2005 D4	2024 A8	2036 A9	2048 B9	2060 D7	2072 D7	2084 D9	3005 E6	3017 B4	3030 B4	6000 A5	7001 C3	7019 B5	F011 E1	F023 A2	F035 D7	F050 B4	I009 B6
1M10 B1	2006 D4	2025 A8	2037 A9	2049 B9	2061 D7	2073 D8	2085 D9	3006 D6	3018 A4	3031 C5	6001 B5	7002 A2	7020 D5	F012 E1	F024 A2	F036 D7	F060 D5	I010 B6
1M11 B10	2007 E6	2026 A8	2038 B8	2050 C7	2062 D7	2074 D8	2086 D8	3007 D6	3019 A4	3999 E4	6002 C5	7009 B5	F001 C4	F013 E1	F025 A1	F037 C7	F098 E4	I011 D6
1M12 D10	2008 E6	2027 A8	2039 B8	2051 C7	2063 D8	2075 D8	2087 D8	3008 C6	3020 A4	5002 A9	6003 C5	7010 C5	F002 C4	F014 D1	F026 A3	F038 C7	F099 E5	I012 D6
1M13 C10	2009 C6	2028 A8	2040 C7	2052 C7	2064 D8	2076 C8	2088 D8	3009 C6	3022 E2	5004 A10	6004 D5	7011 D5	F003 C4	F015 D1	F027 A10	F040 B7	I001 A2	
1M14 E10	2010 C6	2029 A8	2041 C7	2053 C8	2065 D8	2077 C8	2089 D8	3010 C7	3023 E2	5005 B10	6005 D5	7015-1 A7	F004 C4	F016 C1	F028 B10	F041 B7	I002 C2	
1M48 C1	2011 B6	2030 B7	2042 C7	2054 C8	2066 C9	2078 C9	2090 D9	3011 B7	3024 D4	5006 D10	6006 B6	7015-2 A7	F005 C2	F017 C1	F029 C10	F042 A7	I003 D2	
1M49 E1	2012 B6	2031 B7	2043 C8	2055 C8	2067 C9	2079 C9	2091 D9	3012 B6	3025 C4	5007 A9	6007 B6	7016-1 B7	F006 D2	F018 B1	F030 E10	F043 A7	I004 D5	
2001 A2	2020 A7	2032 B7	2044 C8	2056 C8	2068 C8	2080 D8	3001 C1	3013 B6	3026 D2	5008 A9	6008 C6	7016-2 C7	F007 E2	F019 B1	F031 E10	F045 B5	I005 C5	



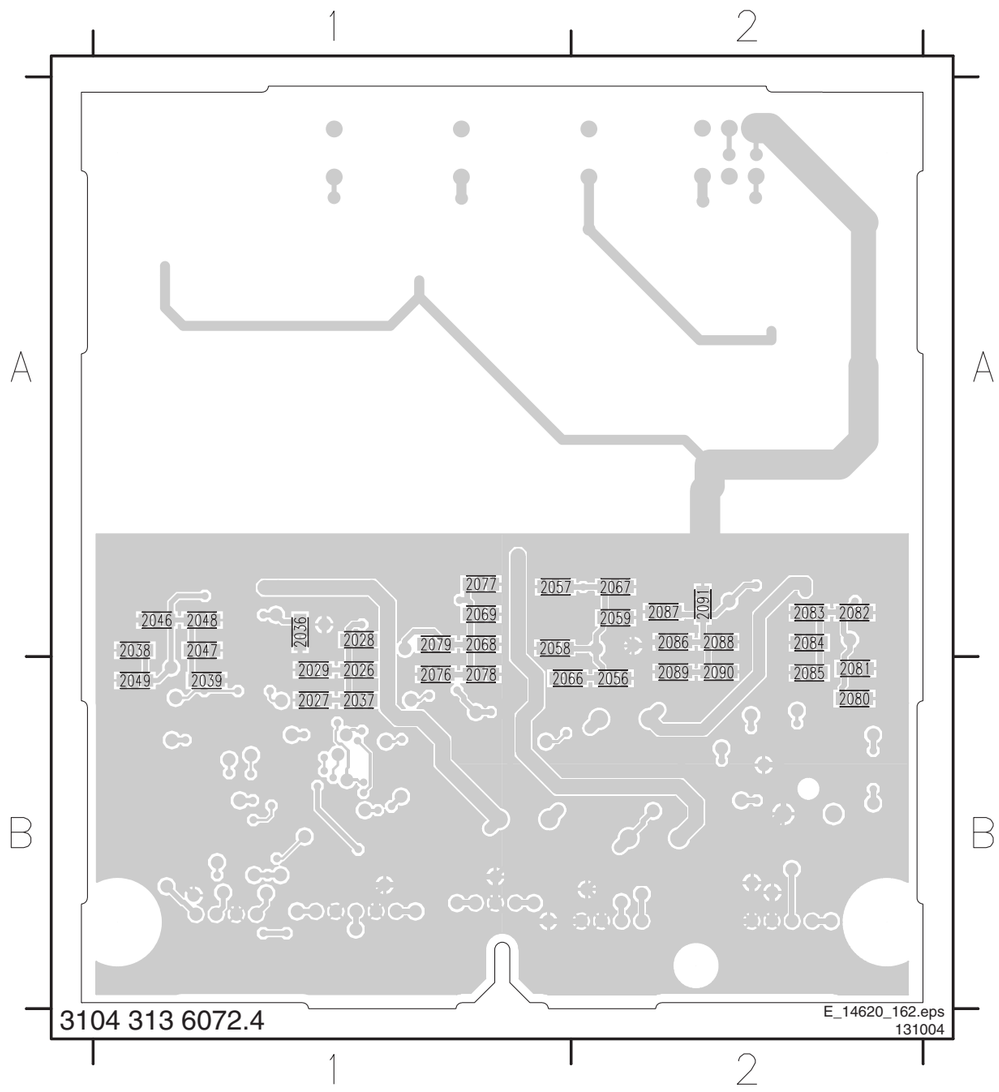
Layout Ambi Light (Top Side) (One Panel)

1004	B2	2011	B2	2051	A2	3005	B1	3027	B2	6006	B2
1010	B1	2012	B2	2052	A2	3006	B1	3028	B2	6007	B2
1050	B2	2020	A2	2053	A2	3007	B1	3029	B2	6008	B2
1M08	B1	2021	A2	2054	B2	3008	B2	3030	B2	6009	B2
1M10	B1	2022	A2	2055	B2	3009	B2	3031	B2	6010	B1
1M11	A2	2023	A2	2060	A1	3010	B2	3999	B1	6011	B1
1M12	A1	2024	A2	2061	A1	3011	B2	5002	B2	7001	B2
1M13	A2	2025	A2	2062	A1	3012	B2	5004	A2	7002	B2
1M14	A1	2030	A2	2063	A1	3013	B2	5005	A1	7009	B2
1M48	B2	2031	A2	2064	A1	3014	B2	5006	A1	7010	B2
1M49	B2	2032	A2	2065	A1	3015	B2	5007	B1	7011	B1
2001	B1	2033	A2	2070	A1	3016	B2	5008	B1	7015	B2
2002	B2	2034	A2	2071	A1	3017	B2	5014	A2	7016	B2
2003	B2	2035	A2	2072	A1	3018	B2	5015	A1	7017	B1
2004	B2	2040	A1	2073	A1	3019	B2	5016	A1	7018	B2
2005	B2	2041	A1	2074	A1	3020	B2	6000	B2	7019	B2
2006	B2	2042	A2	2075	A1	3022	B2	6001	B2	7020	B1
2007	B1	2043	A2	3001	B2	3023	B2	6002	B2		
2008	B1	2044	A1	3002	B2	3024	B2	6003	B2		
2009	B2	2045	A1	3003	B2	3025	B2	6004	B1		
2010	B2	2050	A2	3004	B1	3026	B2	6005	B1		



Layout Ambi Light (Bottom Side) (One Panel)

2026	B1	2037	B1	2048	A1	2059	A2	2076	B1	2081	B2	2086	A2	2091	A2
2027	B1	2038	A1	2049	B1	2066	B1	2077	A1	2082	A2	2087	A2		
2028	A1	2039	B1	2056	B2	2067	A2	2078	B1	2083	A2	2088	A2		
2029	B1	2046	A1	2057	A1	2068	A1	2079	A1	2084	A2	2089	B2		
2036	A1	2047	A1	2058	A1	2069	A1	2080	B2	2085	B2	2090	B2		



Ambi Light (Two Panels)

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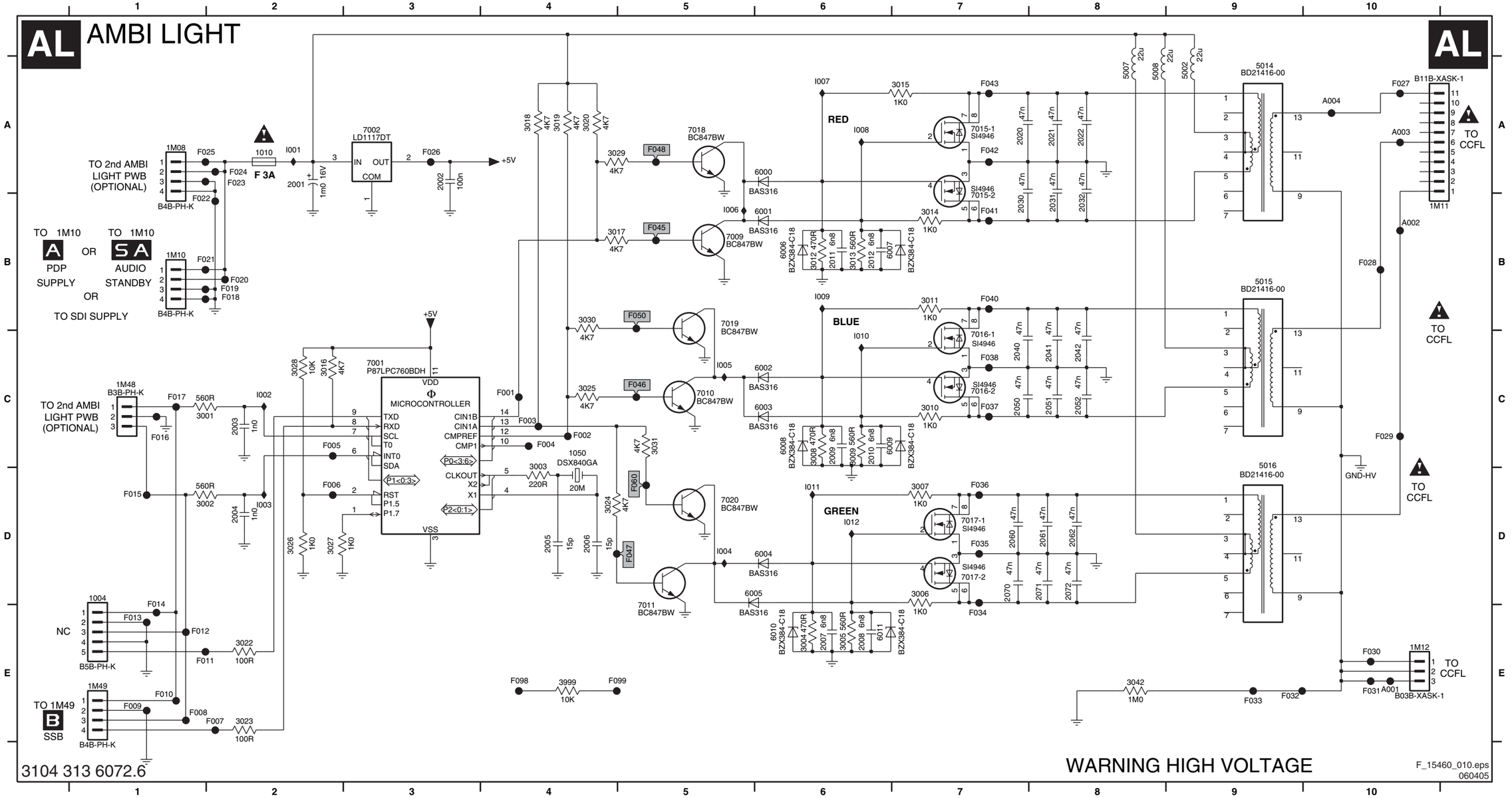
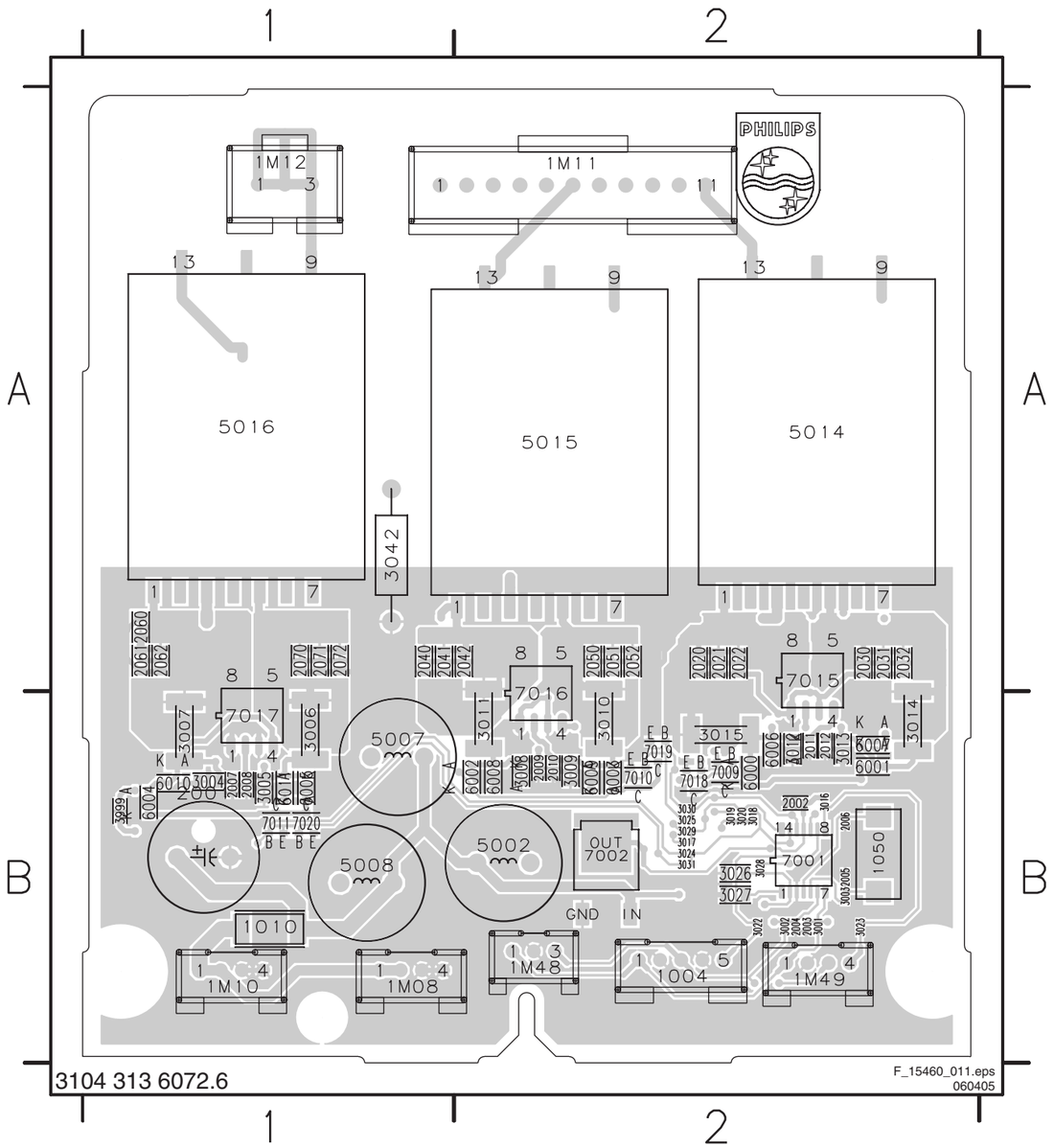
1010 A2	2002 A3	2011 B6	2041 C8	2071 D8	3008 C6	3017 B4	3027 D2	5008 A8	6005 D5	7009 B5	7018 A5	F003 C4	F012 E1	F021 B1	F030 E10	F040 B7	F060 D5	I007 A6
1050 C4	2003 C2	2012 B6	2042 C8	2072 D8	3009 C6	3018 A4	3028 C2	5014 A9	6006 B6	7010 C5	7019 B5	F004 C4	F013 E1	F022 B1	F031 E10	F041 B7	F098 E4	I008 A6
1M08 A1	2004 D2	2020 A7	2050 C7	3001 C1	3010 C7	3019 A4	3029 A4	5015 B9	6007 B6	7011 E5	7020 D5	F005 C2	F014 E1	F023 A2	F032 E9	F042 A7	F099 E4	I009 B6
1M10 B1	2005 D4	2021 A8	2051 C8	3002 D1	3011 B7	3020 A4	3030 B4	5016 C9	6008 C6	7015-1 A7	A001 E10	F006 D2	F015 D1	F024 A2	F033 E9	F043 A7	I001 A2	I010 C6
1M11 B10	2006 D4	2022 A8	2052 C8	3003 D4	3012 B6	3022 E2	3031 C5	6000 A6	6009 C6	7015-2 A7	A002 B10	F007 E2	F016 C1	F025 A1	F034 E7	F045 B5	I002 C2	I011 D6
1M12 E10	2007 E6	2030 B7	2060 D7	3004 E6	3013 B6	3023 E2	3042 E8	6001 B6	6010 E6	7016-1 C7	A003 A10	F008 E1	F017 C1	F026 A3	F035 D7	F046 C5	I003 D2	I012 D6
1M48 C1	2008 E6	2031 B8	2061 D8	3005 E6	3014 B7	3024 D4	3999 E4	6002 C6	6011 E6	7016-2 C7	A004 A10	F009 E1	F018 B2	F027 A10	F036 D7	F047 D5	I004 D5	
1M49 E1	2009 C6	2032 B8	2062 D8	3006 D7	3015 A7	3025 C4	5002 A9	6003 C6	7001 C3	7017-1 D7	F001 C4	F010 E1	F019 B2	F028 B10	F037 C7	F048 A5	I005 C5	

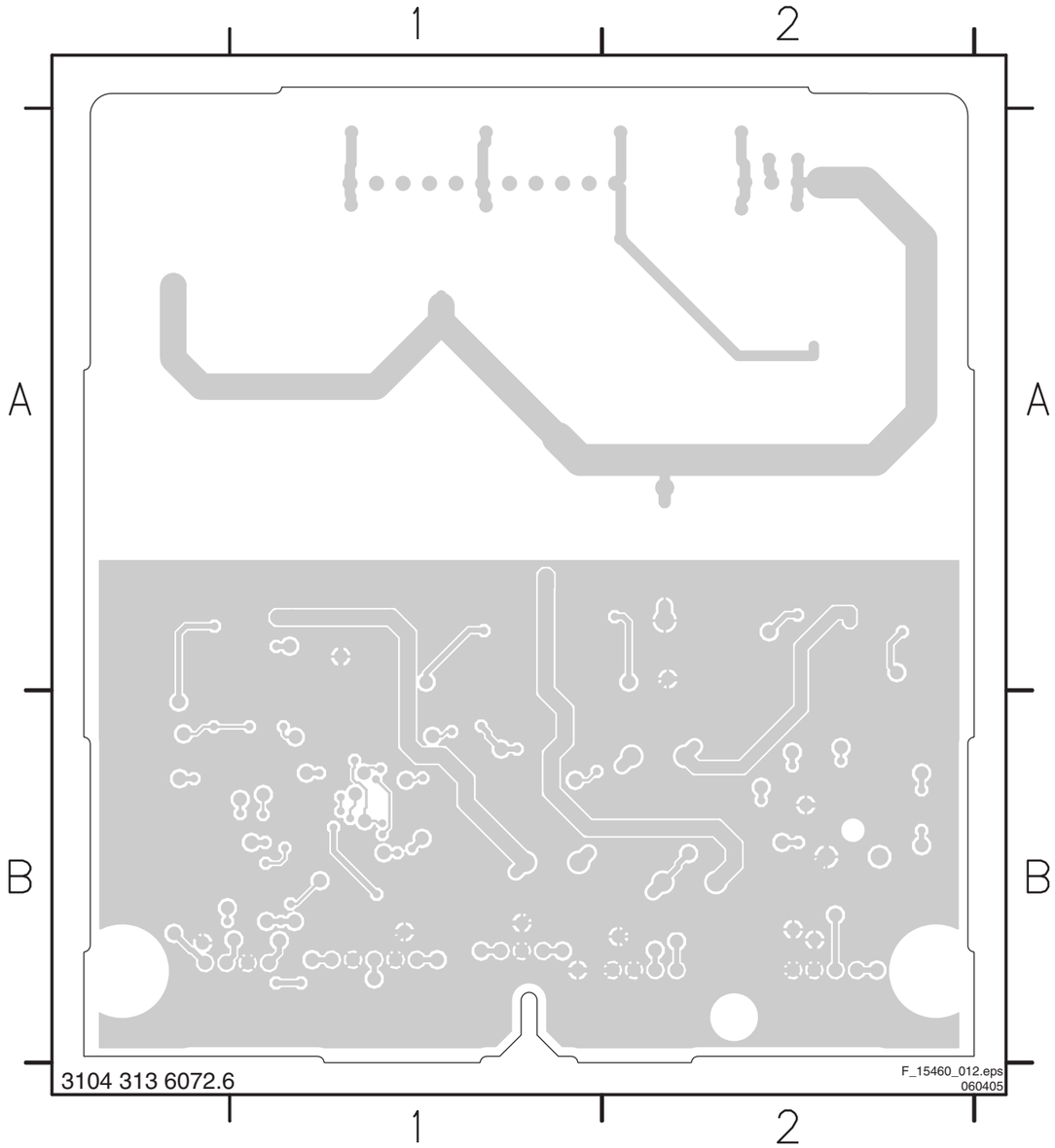


Layout Ambi Light (Top Side) (Two Panels)

1004	B2	2001	B1	2010	B2	2040	A1	2070	A1	3007	B1	3016	B2	3026	B2	5007	B1	6004	B1	7002	B2	7020	B1
1010	B1	2002	B2	2011	B2	2041	A1	2071	A1	3008	B2	3017	B2	3027	B2	5008	B1	6005	B1	7009	B2		
1050	B2	2003	B2	2012	B2	2042	A2	2072	A1	3009	B2	3018	B2	3028	B2	5014	A2	6006	B2	7010	B2		
1M08	B1	2004	B2	2020	A2	2050	A2	3001	B2	3010	B2	3019	B2	3029	B2	5015	A1	6007	B2	7011	B1		
1M10	B1	2005	B2	2021	A2	2051	A2	3002	B2	3011	B2	3020	B2	3030	B2	5016	A1	6008	B2	7015	B2		
1M11	A2	2006	B2	2022	A2	2052	A2	3003	B2	3012	B2	3022	B2	3031	B2	6000	B2	6009	B2	7016	B2		
1M12	A1	2007	B1	2030	A2	2060	A1	3004	B1	3013	B2	3023	B2	3042	A1	6001	B2	6010	B1	7017	B1		
1M48	B2	2008	B1	2031	A2	2061	A1	3005	B1	3014	B2	3024	B2	3999	B1	6002	B2	6011	B1	7018	B2		
1M49	B2	2009	B2	2032	A2	2062	A1	3006	B1	3015	B2	3025	B2	5002	B2	6003	B2	7001	B2	7019	B2		

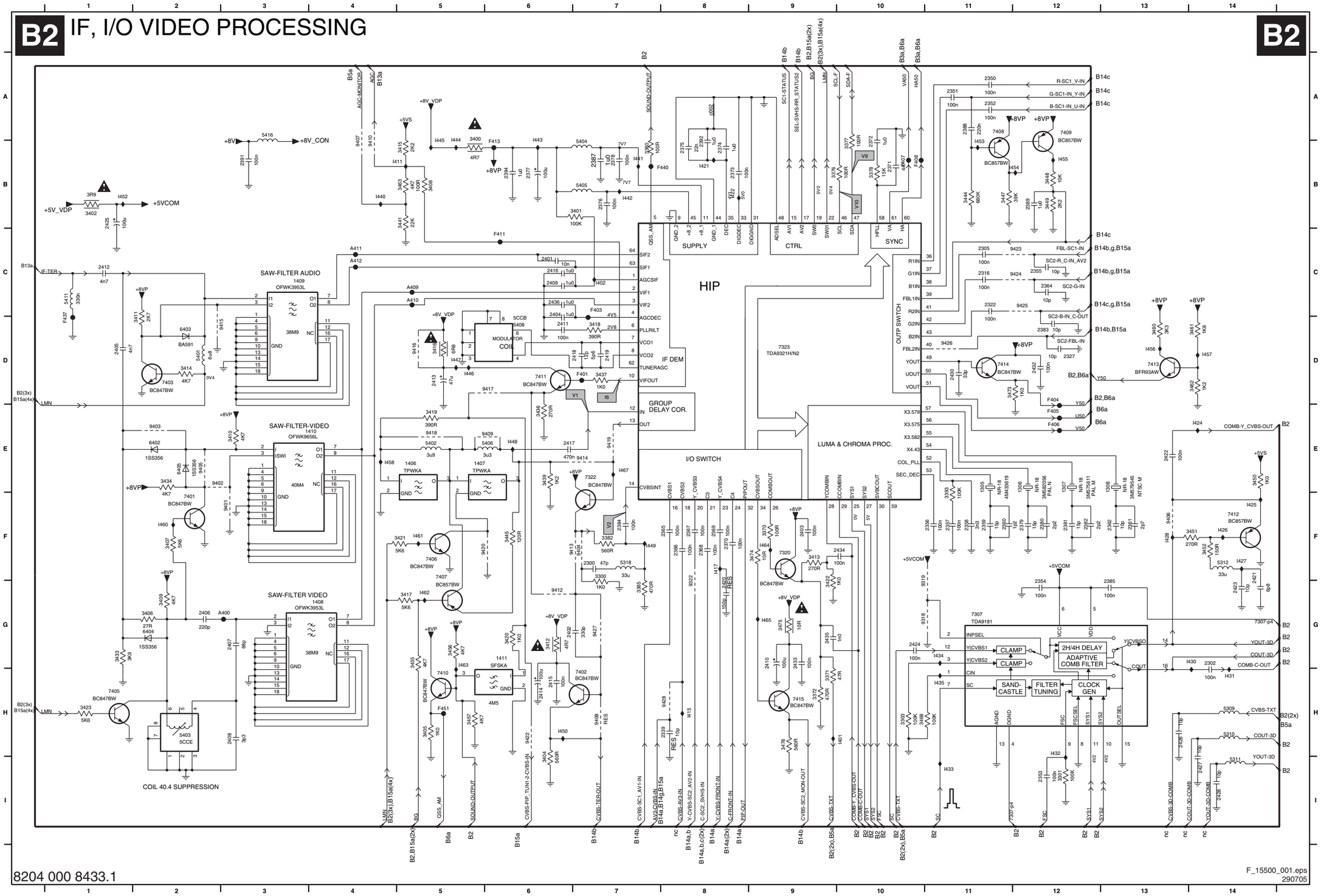


Layout Ambi Light (Bottom Side) (Two Panels)



SSB: IF, I/O Video Processing

B2 IF, I/O VIDEO PROCESSING



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1410 E4 5309 H14
1411 G6 5310 H14
2300 F7 5311 I14
2302 G14 5312 F14
2305 C11 5318 F7
2316 C11 5401 D2
2322 C11 5402 E5
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2422 E13 F403 C7
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2427 I14 F408 B10
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SSB: PICNIC

B3A PICNIC

B3A

FBX SOFTWARE

PROM

7713
PICNIC
SAA4978H/V203

MICRO-PROCESSOR PSP

BACK END
PEAKING
MUX

3 X DAC

MID END
HISTOGRAM
NOISE REDUCTION
TBC/SRC
MUX

ANALOG PROCESSING

3 X ADC

FRONT END

PLL

OSC

BST

FM1
DUAL FIFO
(262,214 x 8) x 2
MS81V04160A

FREQ. MULTI. & ZDB
CY23025

RESERVED

BUS A
BUS B
BUS C
BUS D

* SEE MAPPING I1 ON B3c

** SEE MAPPING G1 ON B3c

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2713 G2 5707 I4
2714 G3 5708 J4
2716 C16 5714 G6
2717 C15 5723 E5
2718 H3 5724 E5
2719 I3 5725 C8
2720 J3 5726 C7
2721 K3 5727 C7
2722 K3 5728 C7
2724 F6 6701 A8
2725 C16 6703 I7
2726 F13 6710 H6
2727 E11 7702 H17
2731 E9 7703 C4
2732 C7 7705 A6
2733 I14 7706 A7
2734 K14 7707 D5
2735 L9 7708 B6
2736 L10 7709 C5
2737 F6 7710 D6
2738 C18 7711 C8
2740 I5 7712 D7
2741 I5 7713 I9
2742 I5 7714 D16
2743 C6 7715 G5
2744 C6 7775 H4
2745 C8 7776 I3
2746 D7 7777 J4
2747 H5 9700 B7
2748 E6 9701 F5
2749 H6 9702 E6
2754 D7 9703 G7
2757 I7 9706 K6
2800 I6 9707 I5
2804 J6 9708 I4
2806 G6 9709 J5
2807 K7 9710 F4
2837 J18 9720 L3
2838 K17 9726 G4
2839 K18 9727 D18
2840 L3 9728 D15
2841 L3 9729 A4
2881 J6 9767 I18
2900 I4 9768 H17
2901 I4 9769 I16
2902 J4 9770 I16
2915 I5 9771 H16
2916 I5 9772 H16
2917 A7 9776 G5
2918 A7 9809 B5
2920 J7 9820 B14
2926 L17 9825 I4
2927 M17 9826 J3
2928 L18 9827 J3
2929 K6 A139 K14
2931 I5 F107 A8
2935 K5 F108 H2
3700 K14 F109 I2
3701 L6 F110 J2
3702 E11 F112 K3
3703 H16 F114 F3
3704 G17 F115 F3
3705 H18 F118 I7
3706 I6 F119 J3
3709 F3 F122 L6
3710 F3 F123 L6
3711 E11 F124 L6
3712 L7 F125 L6
3713 H3 F126 M6
3714 I3 F127 L5
3715 J3 F128 F6
3716 H3 F129 F6
3717 J3 F140 K14
3718 J3 F145 B6
3719 G5 F148 G14
3720 H5 F149 G14
3721 H6 F151 F10
3722 C3 F152 L7
3723 K6 F155 G6
3724 H18 F156 G6
3725 K4 F157 H7
3726 K3 F158 H7
3727 J4 F159 H7
3728 K3 F160 I7
3730 K3 F161 I7
3732 A6 F162 I5
3733 C3 F163 I5
3734 B4 F164 J5
3736 C5 F165 J5
3737 C6 F166 J5
3738 D5 F706 B6
3739 D5 F707 C6
3740 A6 F708 C6
3741 D5 F709 D5
3742 D6 F710 K6
3743 D6 F784 E7
3746 C6 F785 F7
3747 C5 F786 E8
3748 B5 F787 F8
3749 C4 F788 G7
3750 D6 I720 A4
3751 B6 I727 G6
3752 B7 I802 A8
3753 C6 I803 I6
3754 C6 I804 H6
3755 D5 I805 D6
3756 D5 I810 H5
3758 F7 I813 A6
3759 I6 I814 C3
3760 D15 I815 C5
3761 A14 I820 D5
3826 L3
3827 L3
3856 J18
3857 J17
3858 K18
3859 K17
3860 L18
3861 L18
3903 C5
3905 E6
3909 A9
3922 H3
3923 H4
3924 H4
3925 I4
3926 I4
3927 I3

SSB: (FEM) Falconic Embedded Memory

B3B FEM (FALCONIC EMBEDDED MEMORY) B3B

FEM
7760
SAA4998H/V1

2723 G7
2875 B5
2876 B6
2877 B6
2878 D9
2879 E9
2880 G7
2882 H6
2883 H6
2884 H6
2885 F3
2886 D3
2887 B6
2888 B6
3876 C7
3880 F4
3881 F4
3882 F4
3883 F5
3884 G5
3885 E4
3886 E4
3887 E5
3888 E4
3889 E5
3890 E4
3891 E4
7760 E6
9808 C7
9810 F4
9811 G5

8204 000 8481.1

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290705

SSB: Eagle

B3C EAGLE

B3C

EAGLE - IC

VIDEO ENHANCEMENT PROCESSOR

8204 000 8481.1

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290705

2750 B3
2751 B3
2752 B3
2753 B3
2755 B3
2756 B3
2758 A9
2759 B3
2760 B5
2761 B5
2762 B5
2763 B5
2764 B5
2765 A8
2768 B4
2769 B4
2770 B4
2771 B4
2772 B4
2773 B4
2777 B4
2778 B4
2780 B4
2781 B5
2782 B5
2784 B5
2785 B5
2786 D8
2787 D9
2788 F2
2789 F2
2790 F2
2791 F2
2793 F2
2794 B4
2795 B4
2796 B4
2797 B4
2798 B4
2799 B5
2805 B3
2808 B3
2809 B3
2812 B7
2814 B10
2815 A9
2816 B10
2821 B5
2822 B5
2823 E8
2824 F2
2825 E8
2827 E8
2830 B11
2831 B11
2832 B12
2833 B12
2834 B12
2835 B12
2925 H6
2936 E11
3729 B10
3744 F11
3745 G10
3757 E8
3762 C13
3763 D13
3764 D13
3765 D9
3766 D8
3767 D13
3768 D13
3769 D13
3770 D13
3771 D7
3772 D7
3773 D7
3774 D13
3775 D13
3776 D7
3777 D13
3778 D11
3779 D13
3780 D13
3781 D13
3782 D8
3783 D9
3784 D13
3792 E7
3793 F10
3794 D7
3795 E8
3796 F7
3797 F8
3798 F1
3799 F1
3800 D7
3801 E7
3802 E8
3803 E13
3804 D13
3811 H8
3812 H8
3814 H8
3815 H9
3817 H9
3818 H9
3819 H1
3820 H1
3821 F12
3822 F12
3823 F12
3824 G12
3825 G12
3850 H6
3894 E7
3895 B8
3896 B8
3897 A8
3898 B10
3900 H7
3901 H6
3902 H7
3906 E11
3911-1 G6
3911-2 G7
3911-3 G6
3911-4 G7
3912-1 G6
3912-2 G7
3912-3 G7
3912-4 G6
3918 G7
3919 G6
3921 G6
7717 D8
7718 D9
7719 C11
7720 C3
7721 A8
7725 F10
9704 H2
9705 H2
9711 B10
9712 E1
9713 H12
9714 H12
9715 H6
9716 F7
9717 G12
9718 G12
9719 G12
9721 H12
9723 F1
9730 C9
9731 D8
9732 C8
9740 F2
9750 D8
9751 D9
9752 D10
9753 E6
9754 E6
9755 E2
9756 E2
9757 F2
9758 F2
9759 F6
9760 F6
9761 F6
9762 F7
9763 F1
9764 F8
9765 F2
9766 F2
9773 F6
9774 G6
9775 G6
9777 F10
9821 B10
9822 B10
9823 G7
F714 C9
F715 D9
F718 F8
F720 G10
F765 H8
F766 H8
F767 H9
I713 E2
I714 E1
I715 E6
I716 F6
I717 F8
I719 F8
I730 D8
I731 E1
I732 E1

SSB: Columbus

B3D COLUMBUS

B3D

(ONLY FOR 3D COMB)

2792 F9
2819 H3
2836 H3
2850 A1
2851 A1
2852 A1
2853 A2
2854 A2
2855 A2
2856 G2
2857 G2
2858 G2
2859 G2
2860 G3
2861 G3
2862 G3
2863 G3
2864 G4
2865 H2
2866 H2
2867 H2
2868 H2
2869 H3
2870 H3
3830 B11
3831 B10
3832 B10
3833 B11
3834 B10
3835 B10
3836 B11
3837 B10
3838 B10
3839 B10
3840 B11
3841 B10
3842 C10
3843 C10
3844 C11
3845 C10
3846 D1
3847 G5
3848 G6
3849 H10
3851 H10
3853 H5
3854 F8
3855 F8
3913-1 D9
3913-2 D9
3913-3 D9
3913-4 C9
3914-1 C9
3914-2 D9
3914-3 D9
3914-4 D9
3915-1 C9
3915-2 C9
3915-3 E9
3915-4 E9
3916-1 E9
3916-2 E9
3916-3 E9
3916-4 C9
3917-1 D9
3917-2 D9
3917-3 D9
3917-4 E9
5800 F9
7752-1 A8
7752-2 G7
7753 C3
9722 H11
9800 D2
9801 D2
9802 D2
9803 D2
9804 G6
9805 G6
9806 H5
9807 H5
9812 B7
9815 G11
9816 G11
9817 H11
9818 H11
F735 H10
F736 H10
I718 F9
I801 G6
I807 F8

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SSB: FBX Supply

B3E FBX SUPPLY

B3E

RESERVED

+8V_CON 5702 +8VPA
2938 10u 16V 2932 100n 2933 100n

+3V3_DCDCFBXA 5775 7774 KF25BDT25 I743 +2V5_FBXA
2895 10u 2802 100n 2889 100u 2924 100n GND

B3e 3V3_FAULT_FBX 3869 100R I756 BAS316 6711
B3e 3V3_FAULT_FBX 3870 100R I758 6712 BAS316
+3V3_DCDCFBXA 2739 220u 2939 100u 16V I744 5767 F790 +3V3PA 2890 100n
B3e 3V3_FAULT_FBX RES 3875 100R I721 RES BAS316 6722
5779 RES F734 +3V3GA RES 2914 100n
B3e 3V3_FAULT_FBX 3829 100R I759 BAS316 6702
5768 F791 +3V3PB 2891 100n
B3e 3V3_FAULT_FBX 3871 100R I747 BAS316 6713
5769 F792 +3V3PC 2892 100n
B3e 3V3_FAULT_FBX 3872 100R I749 BAS316 6714
5770 F793 +3V3FA 2893 100n
B3e 3V3_FAULT_FBX 3873 100R I750 BAS316 6715
5771 F794 +3V3FB RES 2894 100n
B3e 3V3_FAULT_FBX 3874 100R I751 BAS316 6716 RES
5773 RES RES F748 +3V3Pr
B3e 3V3_FAULT_FBX 3707 100R 6705 BAS316 2843 100n
5772 I753 I752 10u 2728 2729 100n 7773 LF18ABDT 1 IN IN OUT COM GND 2 3 OUT F795 2919 100u 5763 2730 100u F796 2817 100n +1V8FA

+3V3_DCDCFBXA 5709 res 7701 LF15ABDT 1 IN IN OUT COM res GND 2 3 OUT F799 +1V5_FBXB
2715 res 10u 2897 res 100n 2896 100u 5761

6719 S1D 6704 res S1D 5760 I748 7772 LF15ABDT 1 IN IN OUT COM GND 2 3 OUT F713 +1V5_FBXA
2898 10u 2899 100n 2871 220u

+2V5_FBXA 5752 F798 +2V5ED 2849 100n

B3a(3x)B3e(14x) 3V3_FAULT_FBX
B12 3V3_FAULT 5778 6u8 2922 10n 2923 10n GND

+2V5_FBXA 5764 F712 +2V5EC 2921 100n
+2V5_FBXA 5713 F711 +2V5EA 2872 100n
+2V5_FBXA 5762 F797 +2V5EB 2873 100n

+5V_FBXA 5754 7775 LD1117DT33C 3 IN OUT 2 I745 +3V3_FBXB 1 COM 5777 +3V3_DCDCFBXA
2828 10u 2820 100n 2829 100u 2937 220u 4V

+3V3_DCDCFBXA 5719 5720 +3V3_DCDCFBXA
+5VF 5721 RES 5722 +5V_FBXA
+5V_FBXA F749 5755 F750 +5V2Pr
+3V3_DCDCFBXA 5776
2847 10u 2848 100n

5757 F745 +1V5EA
+1V5_FBXA 2844 100n
5758 F746 +1V5EB
+1V5_FBXB 2826 100n
5759 F747 +1V5CA
+1V5_FBXB 2874 100n

B3e 3V3_FAULT_FBX 3868 100R I742 BAS316 6717
+3V3_FBXB 5750 F740 +3V3EA 2811 100n
B3e 3V3_FAULT_FBX 3867 100R I746 BAS316 6718
+3V3_FBXB 5751 F741 +3V3EB 2810 100n
B3e 3V3_FAULT_FBX 3877 100R I712 BAS316 6709
+3V3_FBXB 5780 +3V3ED 2818 100n
B3e 3V3_FAULT_FBX 3805 100R I760 6723 BAS316
+3V3_FBXB 5801 F789 +3V3EC 2813 100n
B3e 3V3_FAULT_FBX 3865 100R I754 BAS316 6720
+3V3_FBXB 5756 F744 +3V3CA 2845 100n
B3e 3V3_FAULT_FBX 3864 100R I755 BAS316 6721
+3V3_FBXB 5753 F743 +3V3CB 2846 100n

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2715 C3 5777 B7
2728 F2 5778 E4
2729 F2 5779 B1
2730 F3 5780 C9
2739 B1 5801 D9
2802 B3 6702 C2
2810 B9 6704 D3
2811 A9 6705 F1
2813 D9 6709 C9
2817 F3 6711 A2
2818 C9 6712 B1
2820 B6 6713 D2
2826 E7 6714 D2
2828 B6 6715 E2
2829 B7 6716 E2
2843 F2 6717 A9
2844 E7 6718 B9
2845 E9 6719 C3
2846 F9 6720 E9
2847 D7 6721 F9
2848 D7 6722 B2
2849 D6 6723 D9
2871 D4 7701 B4
2872 E6 7770 B7
2873 F6 7772 C4
2874 F7 7773 F2
2889 B4 7774 A4
2890 B2 F711 E6
2891 C2 F712 D6
2892 D2 F713 C4
2893 D2 F734 B1
2894 E2 F740 A9
2895 B3 F741 B9
2896 C4 F743 F9
2897 C3 F744 E9
2898 D3 F745 D7
2899 D4 F746 E7
2914 C2 F747 F7
2919 F2 F748 E2
2921 E6 F749 C6
2922 E4 F750 C7
2923 E5 F789 D9
2924 B4 F790 B2
2932 A5 F791 C1
2933 A5 F792 D2
2937 B7 F793 D2
2938 A4 F794 E2
2939 B1 F795 F3
3707 F1 F796 F3
3805 D9 F797 F6
3829 C1 F798 D6
3864 F9 F799 B4
3865 E9 I712 C9
3867 B9 I721 B1
3868 A9 I742 A9
3869 A1 I743 A4
3870 A1 I744 B1
3871 C1 I745 B7
3872 D1 I746 B9
3873 E1 I747 C1
3874 E1 I748 C3
3875 B1 I749 D1
3877 C9 I750 E1
5702 A5 I751 E1
5709 B3 I752 F2
5713 E5 I753 F1
5719 B5 I754 E9
5720 C5 I755 F9
5721 C5 I756 A1
5722 C5 I758 A1
5750 A9 I759 C1
5751 B9 I760 D9
5752 D5
5753 F9
5754 B6
5755 C7
5756 E9
5757 D7
5758 E7
5759 F7
5760 C3
5761 C4
5762 F5
5763 F3
5764 D5
5767 B2
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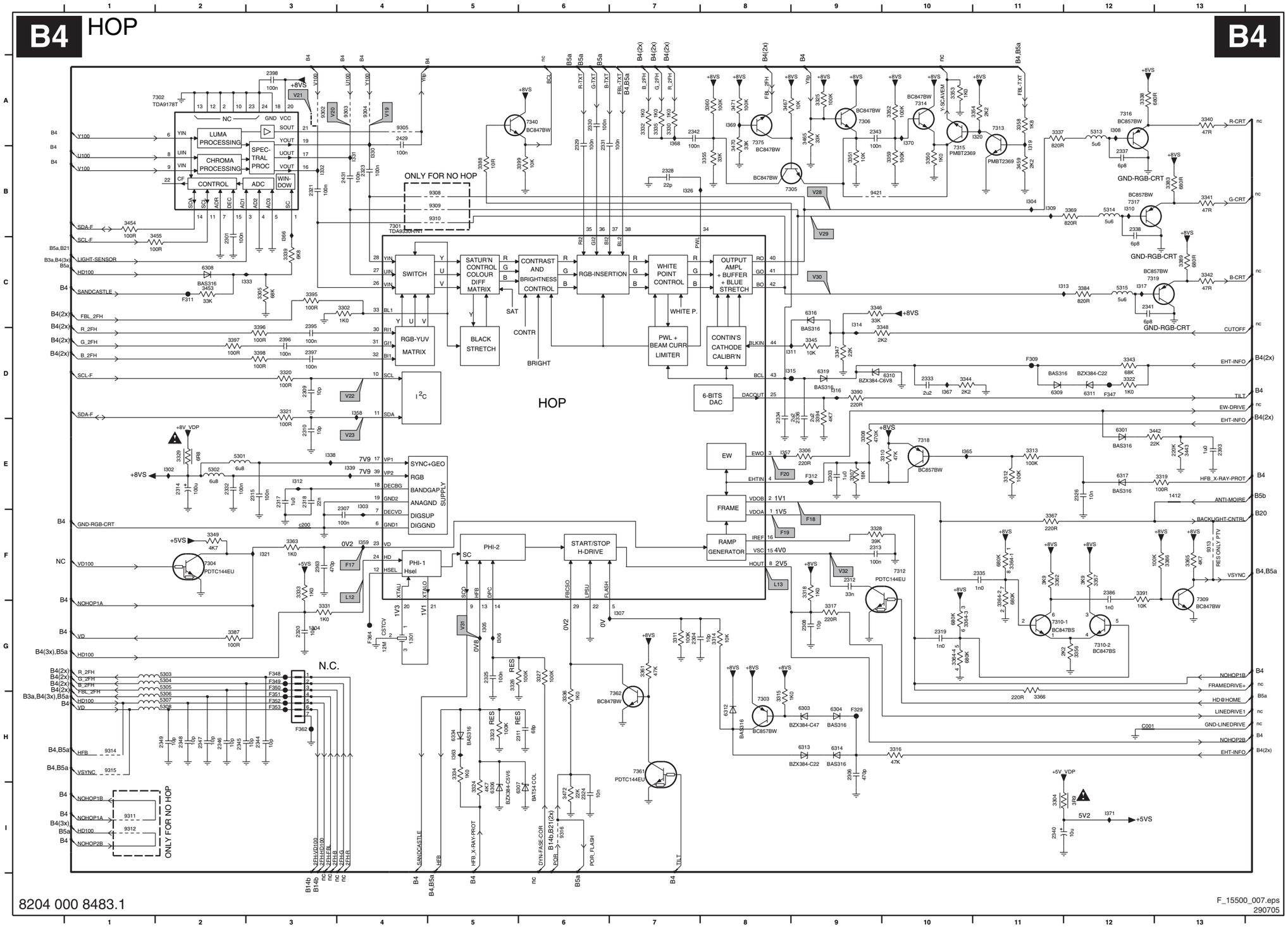
5769 D1
5770 D1
5771 E1
5772 F1
5773 E1
5775 A3
5776 C7

SSB: HOP



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	1412 E13	3344 D10	7316 A12
	2301 B2	3345 D9	7317 B12
	2303 E9	3346 C9	7318 E10
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	2306 H9	3348 D10	7340 A6
	2307 F4	3349 F2	7361 H7
	2308 G9	3350 B10	7362 H7
	2309 D3	3351 B9	7375 A8
A	2310 E3	3352 A10	9302 A3
	2311 H6	3353 A10	9303 A4
	2312 F9	3354 A11	9304 A4
	2313 F9	3355 B8	9305 A4
—	2314 E2	3356 G12	9308 B5
	2315 E3	3357 F12	9309 B5
	2317 E3	3358 A11	9310 B5
	2318 E3	3359 B10	9311 I1
	2319 G10	3360 A8	9312 I1
B	2320 G3	3361 G7	9313 F13
	2321 B3	3362 F11	9314 H1
	2323 B4	3363 F3	9315 H1
	2324 I6	3364-1 F11	9316 I6
—	2325 G5	3364-2 F11	9421 B9
	2326 E12	3364-3 G10	C001 H12
	2328 B7	3364-4 G10	F309 D11
	2329 A6	3365 F13	F311 C2
	2330 A6	3366 H11	F312 E9
C	2331 A6	3367 F11	F329 H9
	2332 E2	3369 B12	F347 D12
	2333 D10	3383 B13	F348 G3
	2334 D8	3384 C12	F349 G3
	2335 F11	3386 F13	F350 G3
—	2336 D9	3387 G2	F351 H3
	2337 B12	3388 B5	F352 H3
	2338 B12	3389 C13	F353 H3
	2340 I11	3390 D9	F362 H3
	2341 C12	3391 F12	F364 F4
D	2342 A7	3394 D9	I302 E2
	2343 A9	3395 C3	I303 E4
	2344 H3	3396 D3	I304 B11
	2345 H2	3397 D2	I305 G5
—	2346 H2	3398 D3	I306 G5
	2347 H2	3399 B6	I307 G7
	2348 H2	3442 E13	I308 A12
	2349 H2	3443 E13	I309 B11
	2363 F3	3453 C2	I310 B12
E	2386 F12	3454 B2	I311 D9
	2393 E13	3455 C2	I312 E3
	2395 D3	3459 B11	I313 C12
	2396 D3	3465 A9	I314 C9
	2397 D3	3467 A8	I315 D8
	2398 A3	3470 A8	I316 D9
	2429 A4	3471 A8	I317 C12
	2431 B4	3472 I6	I319 A11
	3302 C4	5301 E2	I320 A11
F	3304 I11	5302 E2	I321 F3
	3305 C3	5303 G2	I326 B7
	3306 E9	5304 G2	I330 B4
	3307 E9	5305 G2	I331 B4
	3308 E9	5306 H2	I332 B3
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	3311 G7	5308 H2	I338 E3
	3312 E11	5313 A12	I339 E4
	3313 E11	5314 B12	I357 E8
G	3314 G8	5315 C12	I358 D4
	3315 H8	6301 E12	I359 F4
	3316 H10	6303 H9	I363 H5
	3317 G9	6304 H9	I365 E10
	3318 F9	6306 I5	I366 B3
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	3320 D3	6308 C2	I368 A7
	3321 D3	6309 D11	I369 A8
	3322 D12	6310 D10	I370 A10
	3323 H5	6311 D12	I371 I12
H	3324 I5	6312 H8	c200 F3
	3325 A9	6313 H9	
	3326 G5	6314 H9	
	3327 G6	6316 C9	
	3328 F9	6317 E12	
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	3330 A7	6334 H5	
	3331 G3	7301 B4	
	3332 A7	7302 A1	
I	3333 F3	7303 H8	
	3334 H5	7304 F2	
	3335 A7	7305 B9	
	3336 H6	7306 A9	
	3337 A11	7309 G13	
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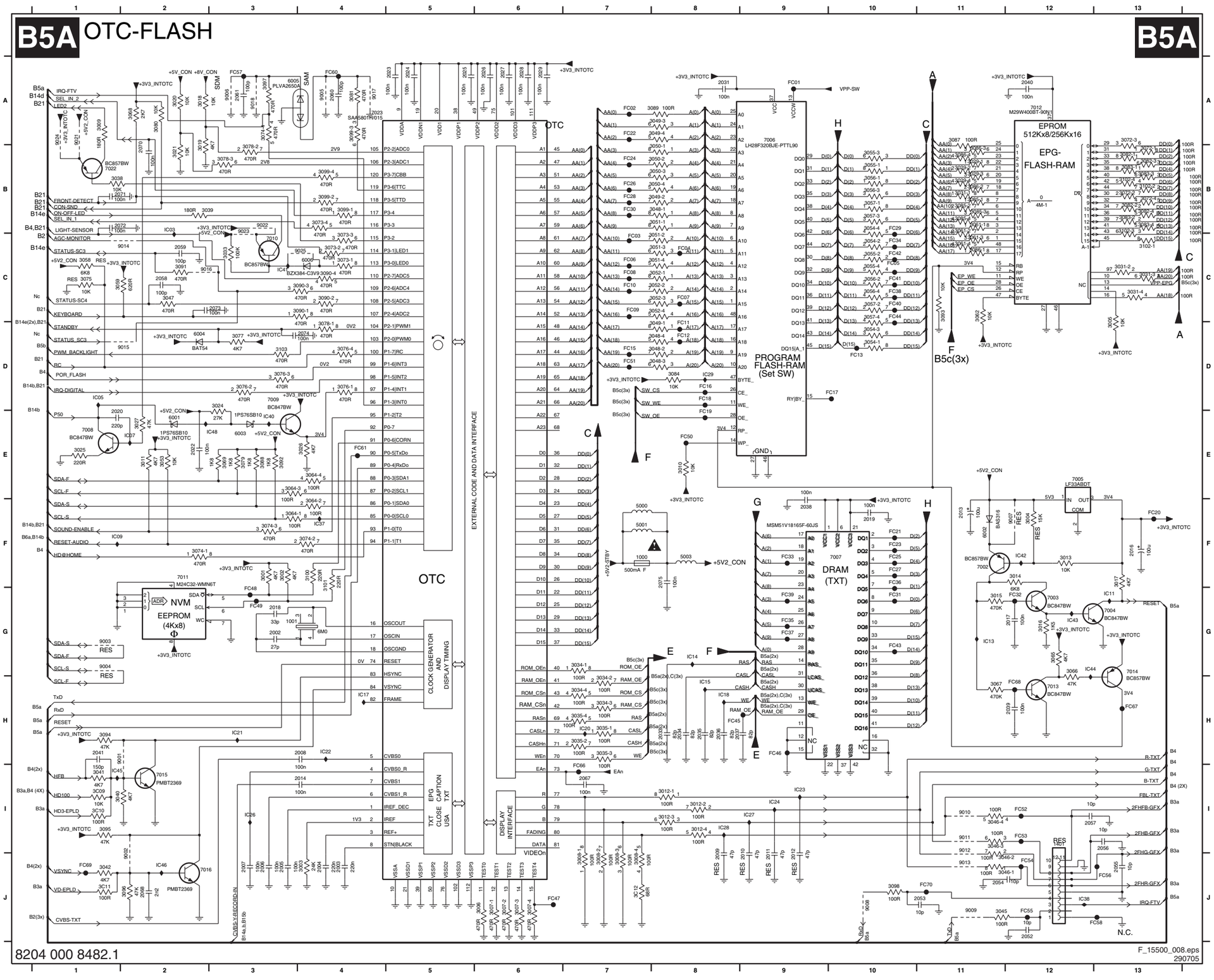
	3341 B13	7313 A11	

SSB: OTC-Flash



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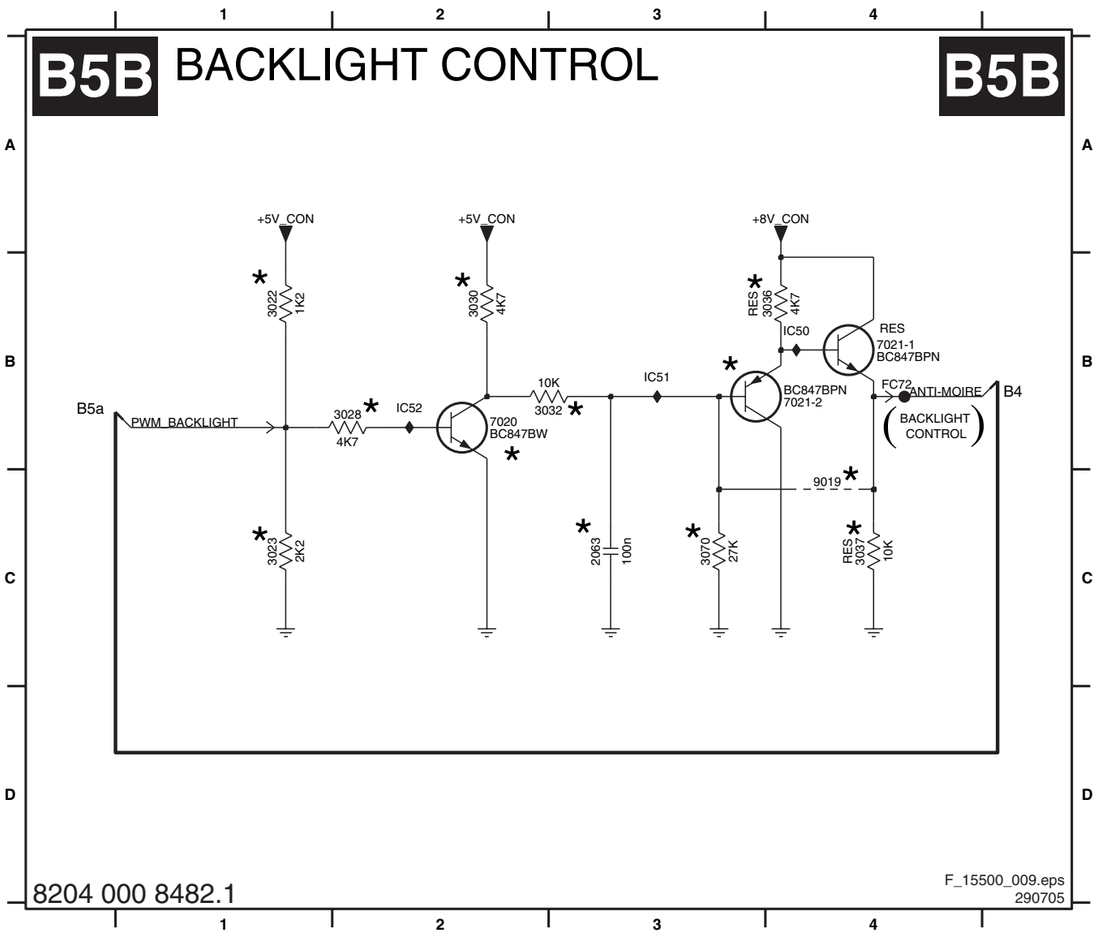
1401 I12	3031-3 C13	3078-3 B3	9021 A1	IC45 I1
2002 G3	3031-4 C13	3079 E3	9022 B3	IC46 J2
2003 J4	3033 C3	3080 A2	9023 B3	IC48 E3
2004 J4	3034-1 G7	3081 A4	9024 A1	
2005 J3	3034-2 H7	3082-1 B13	9025 C4	
2006 J3	3034-3 H7	3082-2 B13	FC01 A9	
2007 J3	3034-4 H7	3082-3 B13	FC02 A7	
2008 H4	3035-1 H7	3082-4 B13	FC03 C7	
2009 J8	3035-2 H7	3083-1 B13	FC04 C8	
2010 J9	3035-3 H7	3083-2 B13	FC05 C10	
2011 J9	3035-4 H7	3083-3 B13	FC06 C7	
2012 J9	3038 B1	3083-4 B13	FC07 C8	
2013 F11	3039 B2	3084 D8	FC08 C7	
2014 I4	3040 I1	3085-1 B11	FC09 C7	
2016 F13	3041 I1	3085-2 B11	FC10 C7	
2017 G12	3042 J1	3085-3 B11	FC11 D8	
2018 G3	3045 J11	3085-4 B11	FC12 D8	
2019 F10	3046-1 J12	3086-1 C11	FC13 D10	
2020 E1	3046-2 J12	3086-2 B11	FC15 D7	
2022 E2	3046-3 I11	3086-3 B11	FC16 D8	
2023 A5	3046-4 I11	3086-4 B11	FC17 D10	
2024 A5	3047 C2	3087 A11	FC18 D8	
2025 A5	3048-1 B8	3088 E3	FC19 E8	
2026 A6	3048-2 D8	3089 A8	FC20 F13	
2027 A6	3048-3 D8	3090-1 C4	FC21 F10	
2028 A6	3048-4 D8	3090-2 C4	FC22 A7	
2029 A6	3049-1 D8	3090-3 C4	FC23 F10	
2031 A8	3049-2 B8	3090-4 C4	FC24 B7	
2033 H8	3049-3 A8	3091 C2	FC25 F10	
2034 H8	3049-4 A8	3092 E3	FC26 B7	
2035 H8	3050-1 B8	3093 C11	FC27 F10	
2036 H8	3050-2 B8	3094 H1	FC28 B7	
2037 H8	3050-3 B8	3095 I1	FC29 B10	
2038 F9	3050-4 B8	3096 J2	FC30 B7	
2039 H12	3051-1 B8	3097 A3	FC31 G10	
2040 A12	3051-2 C8	3098 J10	FC32 G12	
2041 H1	3051-3 C8	3099-1 B4	FC33 F9	
2052 J12	3051-4 C8	3099-2 B4	FC34 C10	
2053 J11	3052-1 C8	3099-3 A4	FC35 G9	
2054 J11	3052-2 C8	3099-4 B4	FC36 F10	
2055 J13	3052-3 C8	3100 F4	FC37 G9	
2056 I13	3052-4 C8	3101 F4	FC38 C10	
2057 I12	3053 E2	3102-1 C13	FC39 G9	
2058 C2	3054-1 D10	3102-2 B13	FC40 C10	
2059 C2	3054-2 C10	3102-3 B13	FC41 C10	
2060 A4	3054-3 D10	3102-4 B13	FC42 C10	
2061 A3	3054-4 B10	3103 D3	FC43 G10	
2067 I7	3055-1 B10	3C09 I1	FC44 C10	
2068 J2	3055-2 C10	3C10 I1	FC45 H8	
2070 B2	3055-3 B10	3C11 J1	FC46 H9	
2071 B1	3055-4 C10	3C12 J7	FC47 J6	
2072 B1	3056-1 B10	5000 F7	FC48 G3	
2073 C3	3056-2 C10	5001 F7	FC49 G3	
2074 D4	3056-3 B10	5003 F8	FC50 E8	
2075 F8	3056-4 C10	6001 E2	FC51 D7	
3001 F3	3057-1 B10	6002 F11	FC52 I12	
3002 F3	3057-2 C10	6003 E3	FC53 I12	
3003 J4	3057-3 B10	6004 D2	FC54 J12	
3004 F12	3057-4 C10	6005 A3	FC55 J12	
3005 D13	3058 C1	6006 C4	FC56 J13	
3006 J6	3059 C1	7002 F11	FC57 A3	
3007-1 J6	3061-1 B11	7003 G12	FC58 J13	
3007-2 J6	3061-2 B11	7004 G13	FC60 A4	
3007-3 J6	3061-3 C11	7005 E12	FC61 E4	
3007-4 J6	3061-4 C11	7006 A9	FC66 I7	
3008-1 J7	3062 C11	7007 F10	FC67 H13	
3008-2 J7	3064-1 F3	7008 E1	FC68 H12	
3008-3 J7	3064-2 F4	7009 D3	FC69 J1	
3008-4 J7	3064-3 E3	7010 C3	FC70 J11	
3009 A1	3064-4 E4	7011 F2	IC03 B2	
3010 E8	3065 G12	7012 A12	IC05 D1	
3011 E2	3066 G12	7013 H12	IC07 E2	
3012-1 I8	3067 H11	7014 G13	IC09 F1	
3012-2 I8	3068 A2	7015 I2	IC11 G13	
3012-3 I8	3069 E3	7016 J2	IC13 G11	
3012-4 I8	3072-1 B13	7022 B1	IC14 G8	
3013 F12	3072-2 B13	7023 A4	IC15 H8	
3014 F12	3072-3 A13	9001 H2	IC17 H4	
3015 G11	3072-4 B13	9002 J2	IC18 H8	
3016 G12	3073-1 C4	9003 G1	IC20 H7	
3017 F13	3073-2 C4	9004 G1	IC21 H3	
3018 A2	3073-3 C4	9005 A4	IC22 H4	
3019 B2	3073-4 B4	9006 A3	IC23 I9	
3020 A2	3074-1 F2	9007 F12	IC24 I9	
3021 B2	3074-2 F4	9008 J10	IC26 I3	
3024 D3	3074-3 F3	9009 J11	IC27 I9	
3025 E1	3074-4 A3	9010 I11	IC28 I8	
3026 E4	3075 C1	9011 I11	IC29 D8	
3027 E2	3076-1 D4	9012 I11	IC37 F4	
3029-1 B11	3076-2 D3	9013 J11	IC38 J12	
3029-2 B11	3076-3 D3	9014 C2	IC40 E3	
3029-3 B11	3076-4 D4	9015 D2	IC41 C3	
3029-4 B11	3077 D3	9016 C2	IC42 F12	

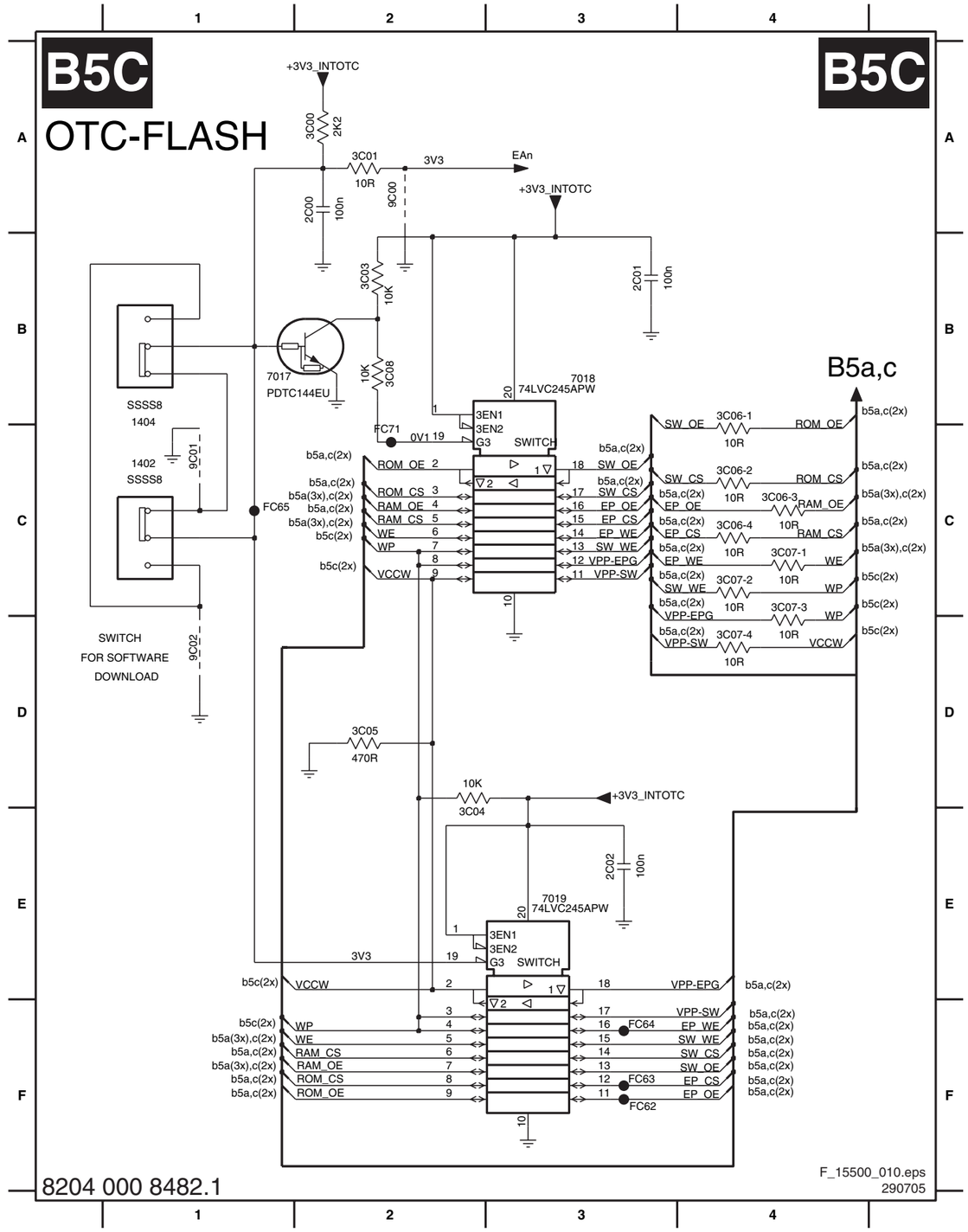
SSB: Backlight Control

2063 C3 3023 C1 3030 B2 3036 B4 3070 C3 7021-1 B4 9019 C4 IC50 B4 IC52 B2
3022 B1 3028 B2 3032 B2 3037 C4 7020 B2 7021-2 B4 FC72 B4 IC51 B3



SSB: OTC-Flash

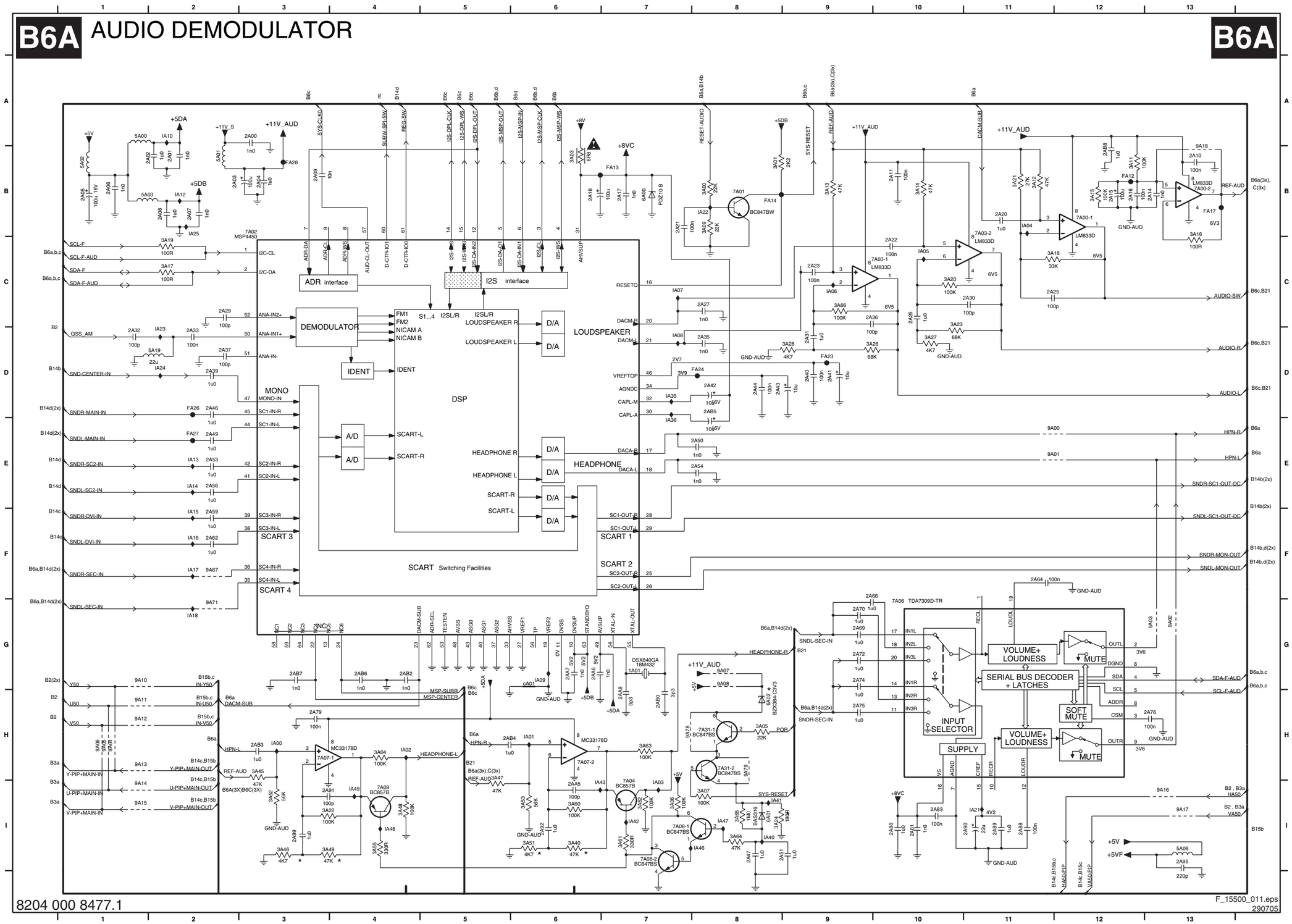
1402 C1 2C01 B3 3C01 A2 3C05 D2 3C06-3 C4 3C07-2 C4 3C08 B2 7019 E3 9C02 D1 FC64 F3
1404 B1 2C02 E3 3C03 B2 3C06-1 B4 3C06-4 C4 3C07-3 C4 7017 B1 9C00 A2 FC62 F3 FC65 C1
2C00 A2 3C00 A2 3C04 D2 3C06-2 C4 3C07-1 C4 3C07-4 D4 7018 B3 9C01 C1 FC63 F3 FC71 C2



SSB: Audio Demodulator

B6A AUDIO DEMODULATOR

B6A



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1A00 G7	3A15 B12	IA08 D7	
1A01 G7	3A16 B13	IA09 G6	
2A00 A3	3A17 C2	IA10 A2	
2A01 B2	3A18 C11	IA12 B2	
2A02 B2	3A19 C2	IA13 E2	
2A03 B2	3A20 C10	IA14 E2	
2A04 B3	3A21 B11	IA15 F2	
2A05 B1	3A22 I3	IA16 F2	
2A06 B1	3A23 C10	IA17 F2	
2A07 B2	3A24 I8	IA18 G2	
2A08 B2	3A26 D9	IA21 I11	
2A09 B3	3A27 D10	IA22 B8	
2A10 B13	3A28 D9	IA23 D2	
2A11 B10	3A40 I6	IA24 D2	
2A14 B13	3A45 H3	IA25 B2	
2A15 B12	3A46 I3	IA35 D7	
2A16 B12	3A47 H5	IA36 E7	
2A17 B7	3A48 I4	IA40 I8	
2A18 B6	3A49 I3	IA41 I8	
2A20 B11	3A51 I6	IA42 I7	
2A21 B7	3A52 I3	IA43 I6	
2A22 C10	3A53 I6	IA46 I8	
2A23 C9	3A55 I4	IA47 I8	
2A25 C11	3A60 I6	IA48 I4	
2A26 C10	3A61 I7	IA49 I4	
2A27 C8	3A62 I7	cA01 G6	
2A29 C2	3A63 H7		
2A30 C11	3A64 I8		
2A31 D9	3A65 I8		
2A32 D1	3A66 C9		
2A33 D2	5A00 A1		
2A35 D8	5A01 B2		
2A36 C9	5A02 B1		
2A37 D2	5A03 B1		
2A39 D2	5A06 I13		
2A40 D9	5A19 D2		
2A41 D9	6A00 B7		
2A42 D8	6A01 I8		
2A43 D8	6A02 H8		
2A44 D8	7A00-1 B12		
2A46 D2	7A00-2 B13		
2A47 I8	7A01 B8		
2A49 E2	7A02 B3		
2A50 E8	7A03-1 C9		
2A51 I9	7A03-2 B11		
2A53 E2	7A04 I7		
2A54 E8	7A06 G10		
2A56 E2	7A07-1 H3		
2A59 F2	7A07-2 H6		
2A62 F2	7A08-1 I7		
2A64 F11	7A08-2 I7		
2A66 F9	7A09 I4		
2A69 G9	7A31-1 H8		
2A70 G9	7A31-2 H8		
2A72 G9	9A00 E11		
2A74 G9	9A01 E11		
2A75 H9	9A02 G13		
2A76 H13	9A03 G13		
2A79 H3	9A04 H1		
2A80 I10	9A05 H1		
2A81 I10	9A06 H1		
2A83 I11	9A07 G8		
2A88 I11	9A08 G8		
2A89 I11	9A10 G1		
2A90 I11	9A11 H1		
2A91 I3	9A12 H1		
2A92 I6	9A13 H1		
2A95 I13	9A14 I1		
2A99 I3	9A15 I1		
2AA5 I6	9A16 I13		
2AA6 G6	9A17 I13		
2AA7 G6	9A18 B13		
2AA9 H7	9A67 F2		
2AB0 H7	9A71 G2		
2AB2 G4	9A78 H7		
2AB3 H3	9A79 H8		
2AB4 H5	FA12 B12		
2AB5 D8	FA13 B7		
2AB6 G4	FA14 B8		
2AB7 G3	FA17 B13		
2AB8 B12	FA23 D9		
3A00 B8	FA24 D8		
3A01 B8	FA26 D2		
3A03 B6	FA27 E2		
3A04 H4	FA28 B3		
3A05 H8	IA00 H3		
3A06 I7	IA01 H6		
3A07 I8	IA02 H4		
3A09 B8	IA03 I7		
3A11 B12	IA04 B11		
3A12 B11	IA05 C10		
3A13 B9	IA06 C9		
3A14 B10	IA07 C7		

SSB: Dolby Digital Decoder

B6B DOLBY DIGITAL DECODER

B6B

DOLBY DIGITAL
AND
MPEG-1 LAYER-2
AUDIO DECODER

7A30
IC MAS3528E

+5M
2AC1 220p
2AD3 1u0
2AD5 1n0
2AD1 1u0
2AD0 1n0
2AD6 1n0
2AD4 1u0
5A38
2AF4 100n
2AF3 100u
+5V

XVDD 23
AVDD 8
VDD 2

18 PI4
24 PI8
28 PI12
29 PI13
30 SID_PI14
31 SII_PI15
32 SIC_PI16
33 PI17
34 PI18
35 PI19
41 _RTW
42 _RTR
43 _EOD
44 SYNC
17 SPDIFOUT
25 SOC
26 SOI
27 SOD
14 SOD1
15 SOD2
16 SOD3
13 CLKO

12 NC2
11 NC1
22 XVSS
7 AVSS
1 VSS

A2 B6c I2S-DD-CLK
A3 B6c I2S-DD-WS
A4 B6c I2S-DD-OUT

SID 21 A5 I2S-MSP-OUT B6a,d
SII 20 A6 I2S-MSP-WS B6a,d
SIC 19 A7 I2S-MSP-CLK B6a

_PCS 36
PR 37
SPREF 39 3V1
SPDI_1 38
SPDI_2 40
XTI 9
XTO 10
TE 6 4V9
_POR 5
SCL 4
SDA 3

+5M
2AE2 1n0
IA71 2AE3 10n
2AE5 10n
IA72 3A74 75R
2AF0 10n
IA75 3A77 75R
A8

SPDIF-IN1 B14b
SPDIF-BO-OUT B14b
SYS-CLK1 B6c
SYS-RESET B6a,C
SCL-F-AUD B6a(2x),C
SDA-F-AUD B6a(2x),C

2AC1 B4
2AD0 B6
2AD1 B6
2AD3 B4
2AD4 B6
2AD5 B5
2AD6 B6
2AE2 D8
2AE3 D7
2AE5 D7
2AF0 E6
2AF3 C8
2AF4 C7
3A74 D7
3A77 E7
5A38 B8
7A30 B4
IA71 D7
IA72 D7
IA75 D7

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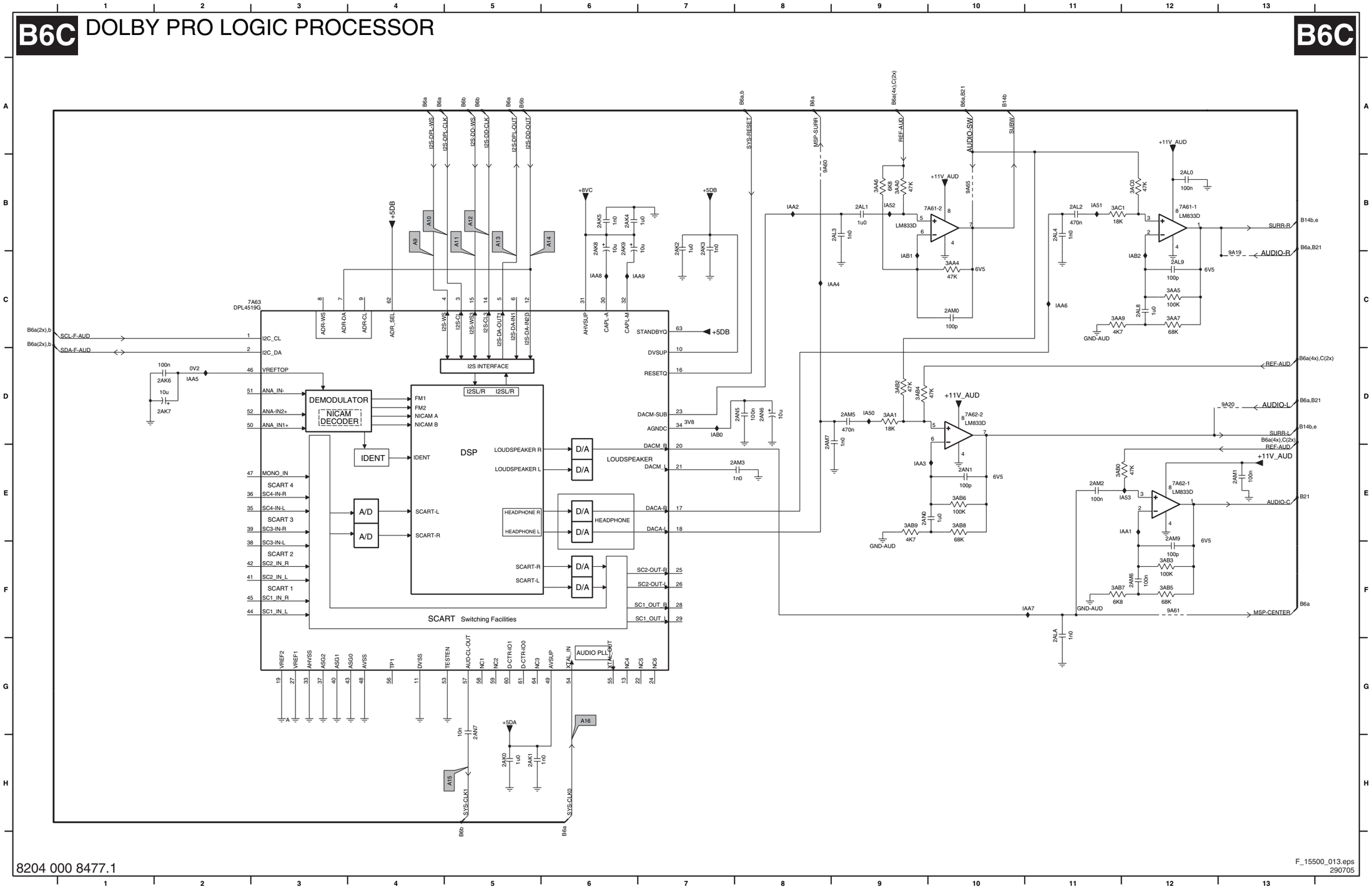
SSB: Dolby Pro Logic Processor

B6C DOLBY PRO LOGIC PROCESSOR



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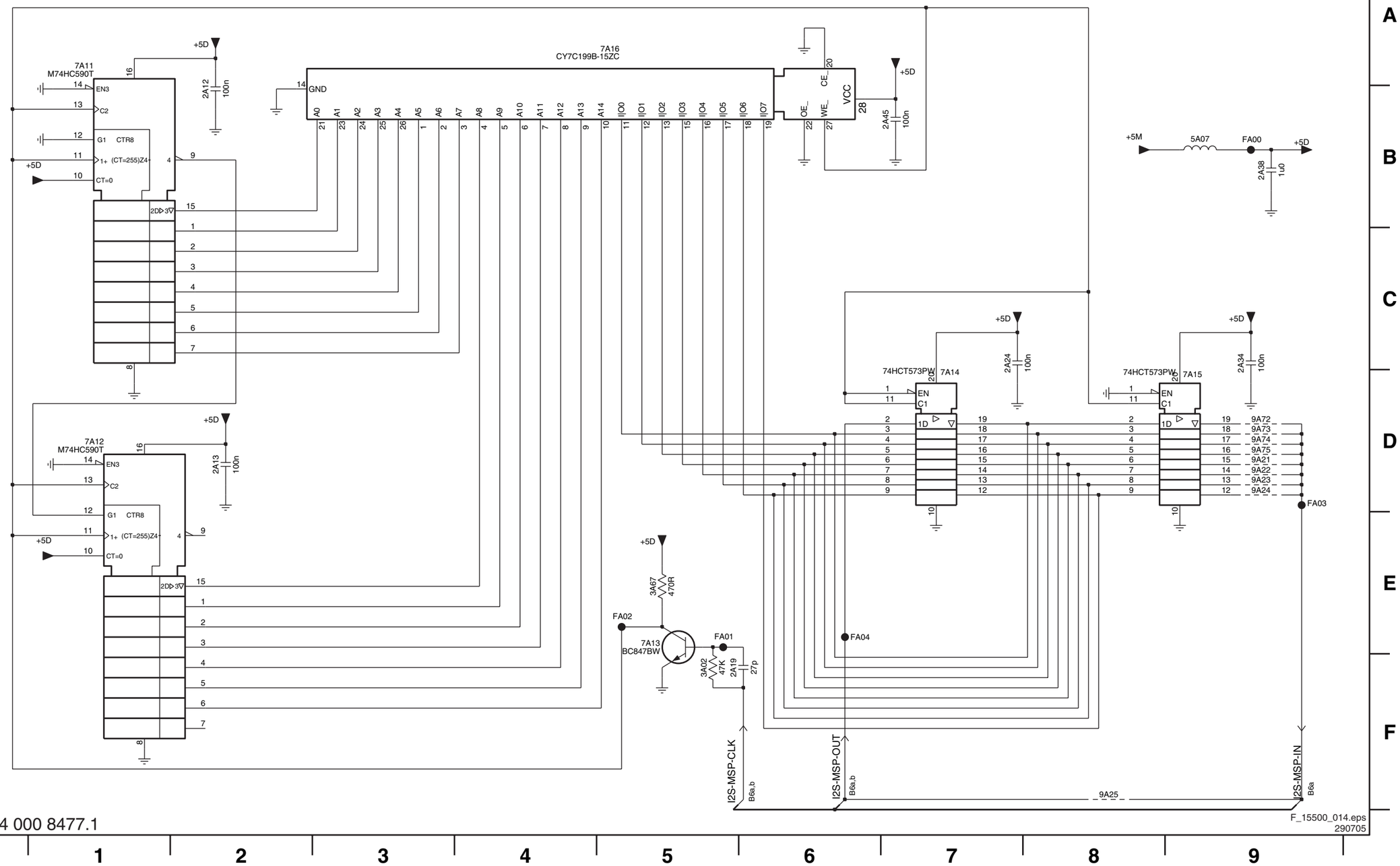
2AK0 G5
2AK1 G5
2AK2 B7
2AK3 B7
2AK4 B6
2AK5 B6
2AK6 D2
2AK7 D2
2AK8 B6
2AK9 B6
2AL0 B12
2AL1 B9
2AL2 B11
2AL3 B9
2AL4 B11
2AL8 C12
2AL9 C12
2ALA F11
2AM0 C10
2AM1 E13
2AM2 E11
2AM3 E7
2AM5 D9
2AM6 F12
2AM7 D8
2AM9 E12
2AN0 E9
2AN1 E10
2AN5 D7
2AN6 D8
2AN7 G5
3AA0 B9
3AA1 D9
3AA4 C10
3AA5 C12
3AA6 B9
3AA7 C12
3AA9 C11
3AB0 E11
3AB2 D9
3AB3 F12
3AB4 D9
3AB5 F12
3AB6 E10
3AB7 F11
3AB8 E10
3AB9 E9
3AC0 B12
3AC1 B11
7A61-A B12
7A61-B B10
7A62-A E12
7A62-B D10
7A63 C3
9A19 C13
9A20 D13
9A60 B8
9A61 F12
9A65 B10
IA50 D9
IA51 B11
IA52 B9
IA53 E12
IAA1 E12
IAA2 B8
IAA3 E9
IAA4 C9
IAA5 D2
IAA6 C11
IAA7 F11
IAA8 C6
IAA9 C7
IAB0 D7
IAB1 C9
IAB2 C12

SSB: Audio Delay

B6D AUDIO DELAY

B6D

2A12 B2
2A13 D2
2A19 F5
2A24 C7
2A34 C9
2A38 B9
2A45 B7
3A02 F5
3A67 E5
5A07 B9
7A11 A1
7A12 D1
7A13 E5
7A14 D7
7A15 D9
7A16 A5
9A21 D9
9A22 D9
9A23 D9
9A24 D9
9A25 F8
9A72 D9
9A73 D9
9A74 D9
9A75 D9
FA00 B9
FA01 E5
FA02 E5
FA03 D9
FA04 E6



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SSB: DC/DC Converter

1U01 A1	2U08 C8	2U16 C2	2U24 G8	2U32 C1	2U40 F3	3U06 C12	3U14 D1	3U22 E12	3U30 C2	3U38 G9	3U46 C10	3U58 G12	3U66 F4	5U04 C7	6U05 B1	6U13 E10	7U05 D9	7U11 E3	FU07 H1	IU06 D4	IU15 A8	IU25 H4	IU35 G7	IU43 E10
2U01 A8	2U09 D6	2U17 D5	2U25 H5	2U33 F10	2U41 F7	3U07 C9	3U15 D14	3U23 E14	3U31 B2	3U39 G9	3U51 A5	3U59 G12	3U67 G5	5U05 C12	6U06 C9	6U14 H8	7U06-A D12	7U12 H3	FU08 C9	IU07 D4	IU16 C11	IU26 E2	IU36 G9	IU44 F11
2U02 B9	2U10 A3	2U18 B2	2U26 H6	2U34 G11	2U42 E6	3U08 C11	3U16 D11	3U24 G6	3U32 H1	3U40 G9	3U52 F10	3U60 F4	3U68 G6	5U06 D12	6U07 D14	6U16 F7	7U06-B D12	7U13-1 F5	FU09 D13	IU08 C4	IU17 D9	IU27 G3	IU37 F8	IU45 F9
2U03 B4	2U11 E10	2U19 H1	2U27 D2	2U35 H8	3U01 C14	3U09 C4	3U17 D7	3U25 F2	3U33 H2	3U41 H6	3U53 F10	3U61 F5	3U69 F6	5U07 B8	6U08 E3	6U17 D14	7U07-1 G10	7U13-2 F4	FU03 B9	IU01 B2	IU09 B4	IU18 D11	IU28 H2	IU38 G9	IU46 F5
2U04 B5	2U12 E7	2U20 H4	2U28 E2	2U36 B6	3U02 B1	3U10 D14	3U18 E11	3U26 H4	3U34 H4	3U42 H5	3U54 H7	3U62 F7	3U70 C14	6U01 A2	6U09 E3	7U01 B2	7U07-2 F8	FU03 B9	IU02 C1	IU10 A4	IU19 C14	IU30 C3	IU39 G9	IU47 F6
2U05 C2	2U13 E14	2U21 B3	2U29 C9	2U37 B6	3U03 C1	3U11 D4	3U19 E8	3U27 H10	3U35 H5	3U43 G6	3U55 E9	3U63 F6	5U01 B8	6U02 A8	6U10 H1	7U02 C4	7U08 D5	FU04 B9	IU03 D1	IU11 A5	IU20 D10	IU31 C2	IU40 G10	cU01 H12
2U06 C3	2U14 B5	2U22 H6	2U30 C1	2U38 A3	3U04 C2	3U12 G10	3U20 E14	3U28 E1	3U36 H10	3U44 D2	3U56 B6	3U64 F7	5U02 A2	6U03 A4	6U11 H2	7U03 C7	7U09 E1	FU05 C8	IU04 E3	IU13 D8	IU21 D14	IU32 E2	IU41 H9	
2U07 C3	2U15 A1	2U23 C13	2U31 D13	2U39 F6	3U05 C3	3U13 D7	3U21 E2	3U29 C2	3U37 F9	3U45 E2	3U57 A6	3U65 F5	5U03 B7	6U04 B5	6U12 F9	7U04 C5	7U10 G4	FU06 G6	IU05 D3	IU14 D6	IU22 E12	IU34 H6	IU42 C6	

B12 DC/DC - CONVERTER

B12

+11V
1U01 T 1500mA 420
5U02 10u
2U15 100u
6U01 BAS316
2U10 22u
2U38 220u 16V res
GND
21V6
IU10
6U03 BAS316
3U51 22R
IU11
2U03 1u0
6U04 BAS316
2U14 470n
2U04 470n
3U56 4K7
2U36 100n
2U37 2n2
GND_SUPPLY
3U57 10K
GND-ILINK
5U01 res
2U01 res
2n2
IU15
6U02 res
STPS2L30A
FU03
+3V3-ILINK
2U02 res
47u
FU04
GND-ILINK
5U07 10u
5U03 10u
5U04
FU05
IU16
FU08
7U01 BC857B
IU01
21V4
3U02 1K0
6U05 BZX384-C12
2U18 120p
3U31 120R
3U29 10R
2U30 120p
3U30 120R
3U03 33K
IU02
3U04 120R
2U16 4n7
IU30
7U02 BC857B
3U05 1K0
IU08
2U21 470n
GND_SUPPLY
5 6 7 8
1 2 3
4
7U04 SI4410DY
SI4410DY 7U03
2U08 22u
BZG05C3V9
6U06
3U07 22R
2U29 330u 6.3V res
IU17
GND_SUPPLY
7U05 BC857BW
3V4
5U05 10u
+3V3_SIM
2U23 100u
3U01 1K0
3U70 1K0
IU19
6V9
3U10 1R0
6U07 PDZ6.8-B
6U17 PDZ6.8-B
3U15 3K3 1%
IU21
3U46 47K 1%
3U08 1K5 1%
3U06 470R
IU18
5U06 10u
+3V3_DCDCFBX
FU09
2U31 100u
7U06-1 BC847BS
7U06-2 BC847BS
IU20
3U16 120R
1V6
1V7
IU22
3U22 270R
3U20 1K01%
3U23 1R0
2U13 220n
2U11 1n0
3U18 1K0 1%
2U02 1n0
2U03 1n0
3U13 10K
2U12 10n
3U17 4R7
3U19 4K7
IU12
IU13
IU14
7U08 BC817-25
IU05
IU06
2U06 22u
2U07 82p
3U09 5K6
IU07
3U11 120R
2U17 470n
2U09 1n0
2U32 3n3
IU03
2U05 1n0
3U14 1K0
3U44 1M0
2U27 6n8
3U03 33K
2U30 120p
BC817-25 7U09
IU32
3U45 1M0
2U28 6n8
3U21 47K
6U08 BAT54 COL
6U09 BAT54 COL
IU04
3U28 47K
IU26
7U11 BC847BW
3U25 220K
GND_SUPPLY
1K0 3U60
3U61 10K
IU46
2n2 2U40
3U66 10K
BC847BPN 7U13-2
7U13-1 BC847BPN
IU47
3U67 100R
3U68 10K
47n 2U42
1K0 3U69
3U63 2K2
2U39 100n
3U64 1K0
2U41 6n8
BZX384-C5V1 6U16
1K0 3U62
3U55 1K0
PDZ8.2-B 6U13
IU43
IU45
BZX384-C5V1 6U12
2U33 1u0
18K 3U53
3U52 1K0
7U07-2 BC847BPN
IU37
3U38 2K2
IU38
22K 3U37
3U12 22K
2U34 22n
IU44
7U07-1 BC847BPN
150K 3U40
2U24 1n0
IU36
22K 3U39
IU39
IU40
3U58 1R0 res
3U59 1R0 res
cU01
GND
3V3_FAULT
B3e,B14a,B19b,B13c
22K 3U43
FU06
3U24
IU35
100n 2U26
2U22 1u0
IU41
6U14 BAV99 COL
2U35 1u0
3U36 2K2
3U27 22K
3U54 100R
3U41 1K0
7U10 BC847BW
IU27
3U32 18K
FU07
6U10 BZX384-C15
IU28
0V7
2U19 100n
BAS316 6U11
3U33 10K
7U12 BC847BW
2U20 1u0
3U34 330K
IU25
3U26 22K
100n 2U25
10K 3U42
IU34
3U35 10K
8204 000 8480.1
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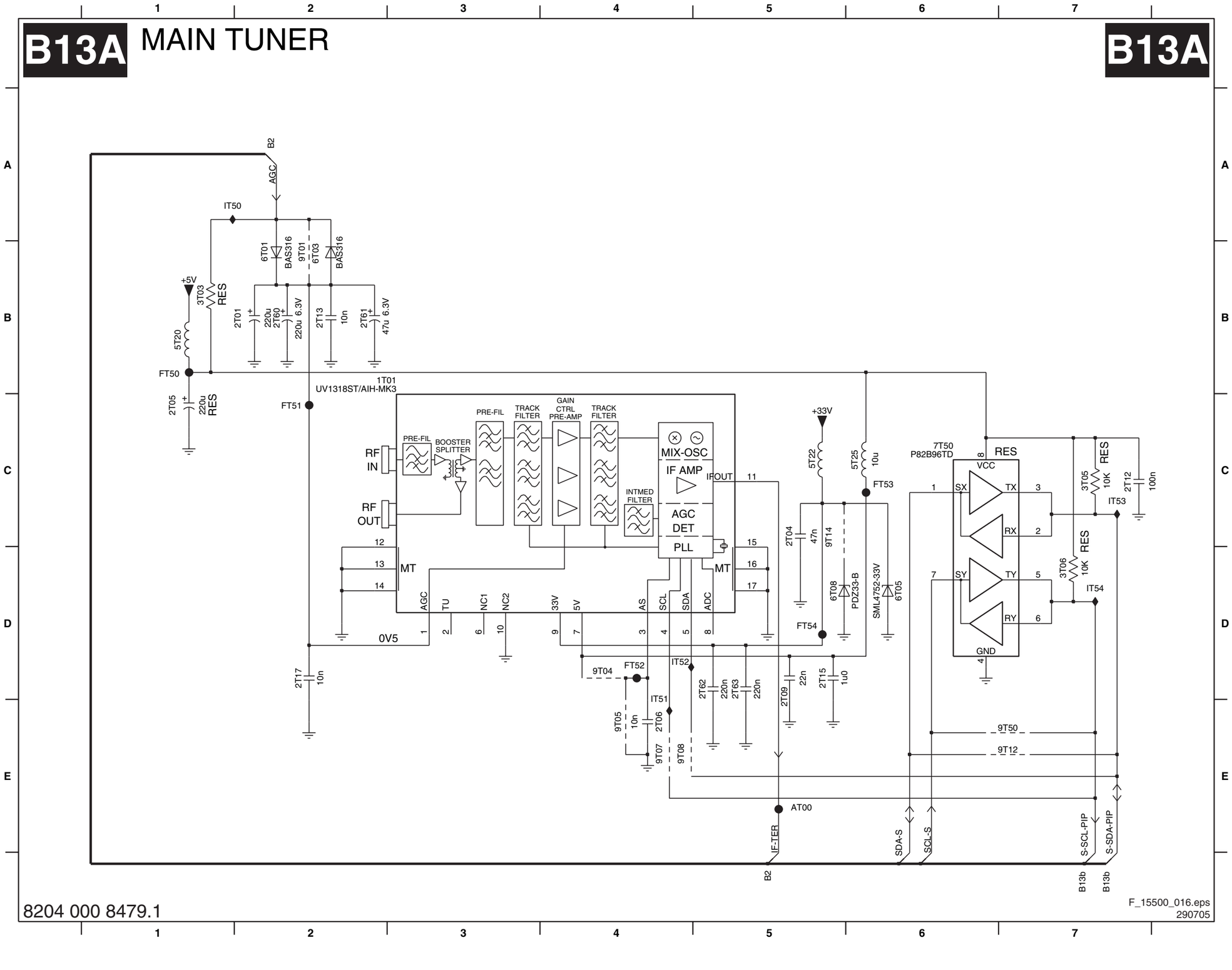
SSB: Main Tuner

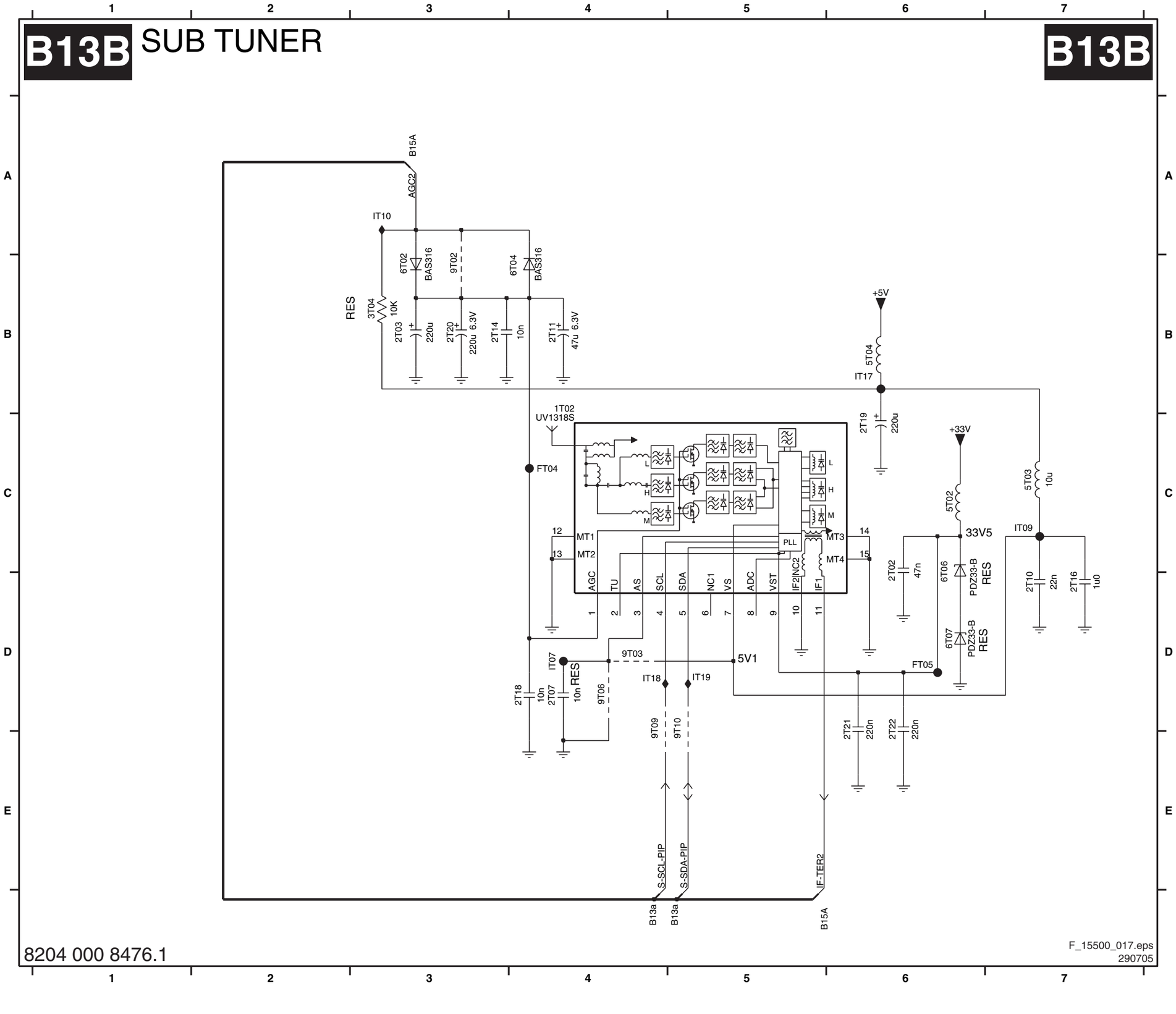
1T01 B3	2T05 C1	2T12 C7	2T17 D2	2T62 D5	3T05 C7	5T22 C5	6T03 B2	7T50 C6	9T05 E4	9T12 E7	AT00 E5	FT52 D4	IT50 A1	IT53 C7
2T01 B2	2T06 E4	2T13 B2	2T60 B2	2T63 D5	3T06 D7	5T25 C6	6T05 D6	9T01 B2	9T07 E4	9T14 C5	FT50 B1	FT53 C6	IT51 D4	IT54 D7
2T04 C5	2T09 D5	2T15 D5	2T61 B2	3T03 B1	5T20 B1	6T01 B2	6T08 D5	9T04 D4	9T08 E4	9T50 E7	FT51 C2	FT54 D5	IT52 D4	



SSB: Sub Tuner

B13B SUB TUNER

B13B



1T02 B4
2T02 C6
2T03 B3
2T07 D4
2T10 D7
2T11 B4
2T14 B3
2T16 D7
2T18 D4
2T19 C6
2T20 B3
2T21 D6
2T22 D6
3T04 B3
5T02 C6
5T03 C7
5T04 B6
6T02 B3
6T04 B4
6T06 C6
6T07 D6
9T02 B3
9T03 D4
9T06 D4
9T09 D4
9T10 D5
FT04 C4
FT05 D6
IT07 D4
IT09 C7
IT10 A3
IT17 B6
IT18 D4
IT19 D5

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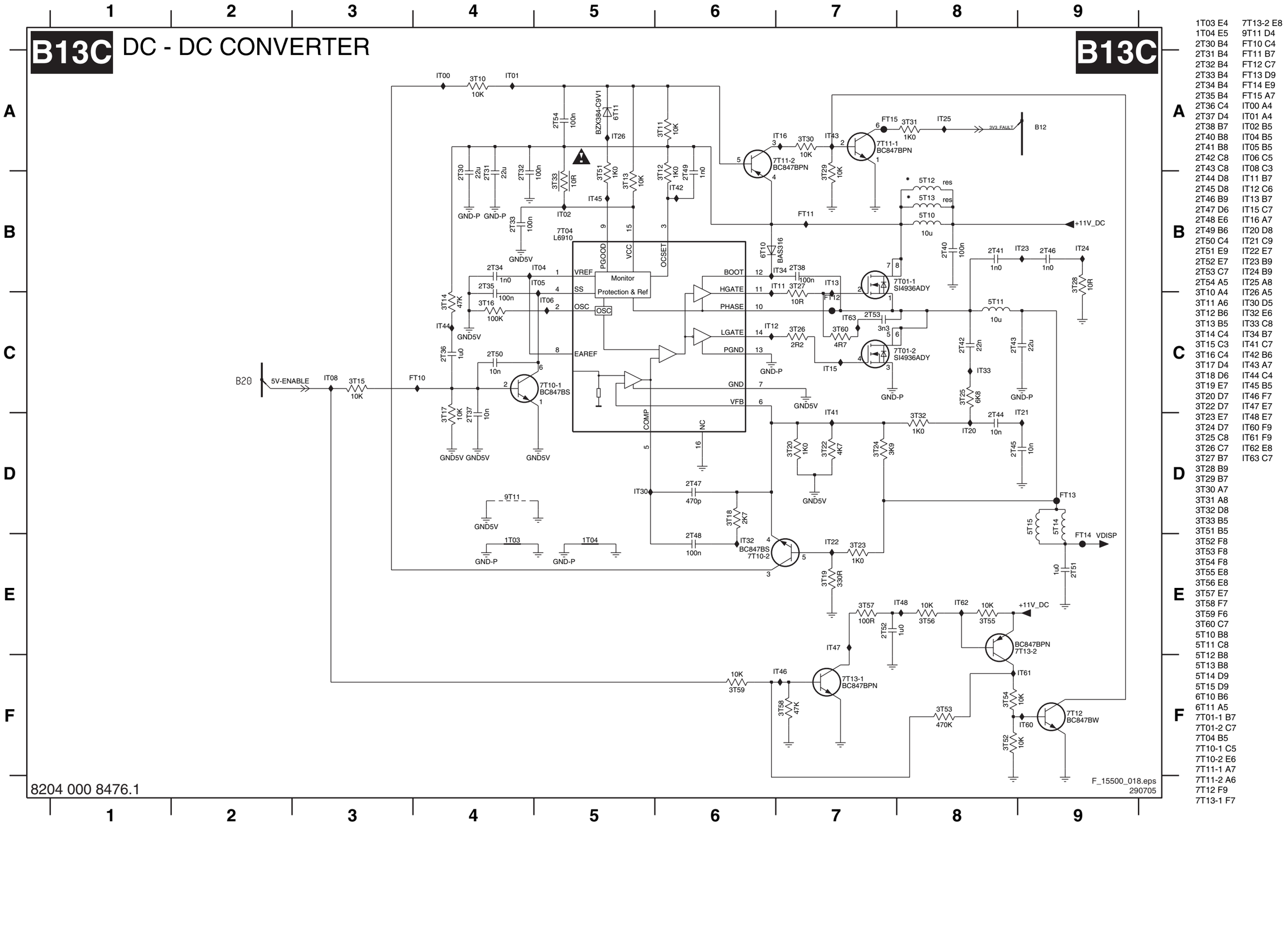
SSB: DC/DC Converter

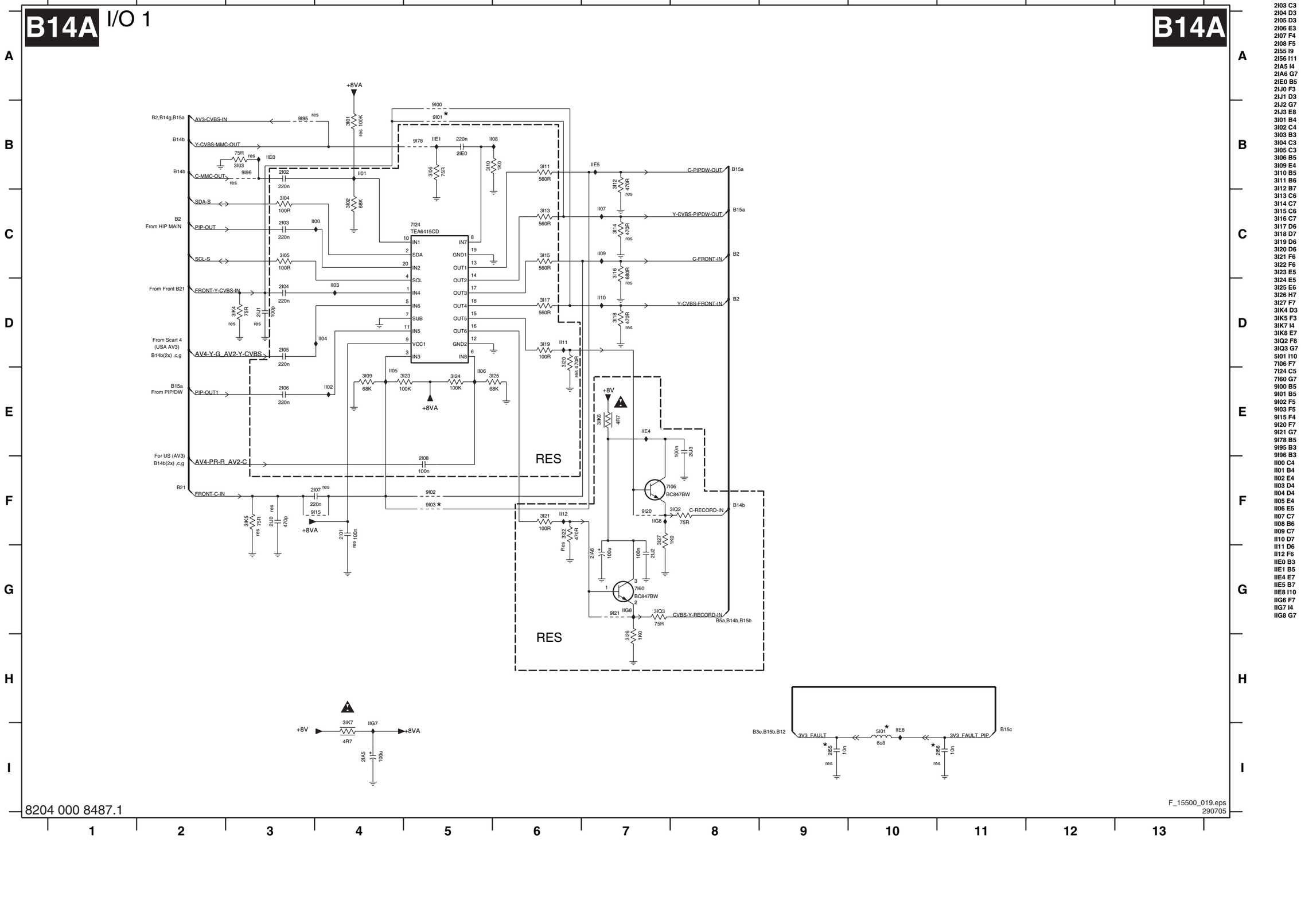
B13C DC - DC CONVERTER



1T03 E4	7T13-2 E8
1T04 E5	9T11 D4
2T30 B4	FT10 C4
2T31 B4	FT11 B7
2T32 B4	FT12 C7
2T33 B4	FT13 D9
2T34 B4	FT14 E9
2T35 B4	FT15 A7
2T36 C4	IT00 A4
2T37 D4	IT01 A4
2T38 B7	IT02 B5
2T40 B8	IT04 B5
2T41 B8	IT05 B5
2T42 C8	IT06 C5
2T43 C8	IT08 C3
2T44 D8	IT11 B7
2T45 D8	IT12 C6
2T46 B9	IT13 B7
2T47 D6	IT15 C7
2T48 E6	IT16 A7
2T49 B6	IT20 D8
2T50 C4	IT21 C9
2T51 E9	IT22 E7
2T52 E7	IT23 B9
2T53 C7	IT24 B9
2T54 A5	IT25 A8
3T10 A4	IT26 A5
3T11 A6	IT30 D5
3T12 B6	IT32 E6
3T13 B5	IT33 C8
3T14 C4	IT34 B7
3T15 C3	IT41 C7
3T16 C4	IT42 B6
3T17 D4	IT43 A7
3T18 D6	IT44 C4
3T19 E7	IT45 B5
3T20 D7	IT46 F7
3T22 D7	IT47 E7
3T23 E7	IT48 E7
3T24 D7	IT60 F9
3T25 C8	IT61 F9
3T26 C7	IT62 E8
3T27 B7	IT63 C7
3T28 B9	
3T29 B7	
3T30 A7	
3T31 A8	
3T32 D8	
3T33 B5	
3T51 B5	
3T52 F8	
3T53 F8	
3T54 F8	
3T55 E8	
3T56 E8	
3T57 E7	
3T58 F7	
3T59 F6	
3T60 C7	
5T10 B8	
5T11 C8	
5T12 B8	
5T13 B8	
5T14 D9	
5T15 D9	
6T10 B6	
6T11 A5	
7T01-1 B7	
7T01-2 C7	
7T04 B5	
7T10-1 C5	
7T10-2 E6	
7T11-1 A7	
7T11-2 A6	
7T12 F9	
7T13-1 F7	

SSB: I/O 1

B14A I/O 1



2I01 F4
2I02 B3
2I03 C3
2I04 D3
2I05 D3
2I06 E3
2I07 F4
2I08 F5
2I55 I9
2I56 I11
2IA5 I4
2IA6 G7
2IE0 B5
2IJ0 F3
2IJ1 D3
2IJ2 G7
2IJ3 E8
3I01 B4
3I02 C4
3I03 B3
3I04 C3
3I05 C3
3I06 B5
3I09 E4
3I10 B5
3I11 B6
3I12 B7
3I13 C6
3I14 C7
3I15 C6
3I16 C7
3I17 D6
3I18 D7
3I19 D6
3I20 D6
3I21 F6
3I22 F6
3I23 E5
3I24 E5
3I25 E6
3I26 H7
3I27 F7
3IK4 D3
3IK5 F3
3IK7 I4
3IK8 E7
3IQ2 F8
3IQ3 G7
5I01 I10
7I06 F7
7I24 C5
7I60 G7
9I00 B5
9I01 B5
9I02 F5
9I03 F5
9I15 F4
9I20 F7
9I21 G7
9I78 B5
9I95 B3
9I96 B3
II00 C4
II01 B4
II02 E4
II03 D4
II04 D4
II05 E4
II06 E5
II07 C7
II08 B6
II09 C7
II10 D7
II11 D6
II12 F6
IIE0 B3
IIE1 B5
IIE4 E7
IIE5 B7
IIE8 I10
IIG6 F7
IIG7 I4
IIG8 G7

SSB: I/O 2 Connections

1I01-1 E11 1I01-2 C3 1I01-3 B3 1I02 F6 1I04-1 B11 1I04-2 C11 1I04-3 B13 1I06-1 H11 1I06-2 F11 1I09 C10 1I10-A B6 1I10-B A11 1I10-C C6 1I10-D D6 1I11 E15 1I17 F5 1I18 F3 1I37 E10 1I38 E10 1I39 C10 1I40 D10 1I41 C12 1I42 B13 1I44 B14 1I46 C10 1I47 B10 1I48 F10 1I49 G10 1I54 H10 1I58 H9 1I70 C13 1I71 D3 1I72 B3 1I73 C3 1I75 B12 1I76 B12 1I77 A6 1I78 D6 1I97 A4 2I11 F1 2I12 H2 2I15 E3 2I18 E9 2I19 E9 2I21 D9 2I22 C9 2I23 B9 2I24 C9 2I26 F8 2I27 G8 2I30 H8 2I32 G8 2I36 H8 2I39 F1 2I46 F6 2I47 H4 2I51 A14 2I63 A4 2IA4 G2 2IC0 F8 2IC1 F8 2IC6 F4 2IC7 F4 2IC9 A5 2IH3 G4 3I07 G2 3I28 H7 3I32 F3 3I33 F3 3I34 H2 3I36 H2 3I37 E1 3I38 H2 3I40 E4 3I41 F4 3I54 D4 3I55 D4 3I56 B4 3I57 B3 3I58 C4 3I59 C3 3I61 D9 3I62 E9 3I69 C9 3I70 C9 3I71 D8 3I72 D9 3I73 C15 3I74 C12 3I76 B15 3I77 B13 3I78 A5 3I79 B9 3I80 C9 3I83 B15 3I84 B14 3I87 C14 3I88 C13 3I89 F8 3I90 F9 3I91 F8 3I92 F9 3I98 H4 3I99 G8 3IA0 G9 3IA1 H4 3IA2 H8 3IA3 H8 3IA4 A2 3IA5 B2 3IA6 B2 3IA7 C2 3IA8 D2 3IB2 D9 3IB4 F6 3IB5 F6 3IC1 H6 3IC2 G4 3IC3 G4 3IC4 E9 3IC6 B8 3IC9 D2 3ID0 G6 3ID1 E3 3ID7 G3 3ID8 H3 3IH1 G5 3IK2 B9 3IK3 C9 3IN5 E9 3IN6 E9 3IS2 C8 3IT0 F8 3IT1 G8 3IT4 H8 3IW4 G5 3IW5 H5 6I08 F3 6I09 E4 6I10 E3 6I11 E1 6I12 G2 6I13 H2 6I26 C3 6I27 A4 6I28 B4 6I30 D10 6I31 E10 6I32 E10 6I33 E10 6I37 C9 6I38 C9 6I39 D9 6I40 D9 6I41 B14 6I43 A4 6I44 A14 6I45 B10 6I46 B10 6I47 C10 6I48 C10 6I50 B14 6I52 C13 6I53 F9 6I54 F9 6I55 G9 6I56 G9 6I61 G9 6I62 H9 6I69 H9 6I70 H9 6I71 A1 6I72 C4 6I73 D4 6I74 C15 6I76 C15 6I77 C14 6IA7 G3 7I01-1 A1 7I02-1 B1 7I02-2 C1 7I04 D1 7I05-1 F1 7I05-2 G1 7I07 H6 7I09 G6 7I21-1 E2 7I21-2 E1 7I44-1 H3 7I44-2 G3 7I49 G5 7I50-1 H1 7I50-2 H2 9I04 H12 9I08 G13 9I82 E3 9I10 H14 9I11 F13 9I12 H14 9I69 F13 9I70 A6 9I80 H13 9I82 F11 9I86 B13 9I92 F15 9I97 G13 9IA4 D1 9IA5 D1 9IA7 F6 9IB1 F11 9IB2 F11 9IB3 A10 9ID1 A7 9ID2 A7 9ID3 A8 9ID4 A8 9ID5 A9 9ID6 A9 9ID7 A10 9ID8 A10 9ID9 A10 9IZY G4 9IZZ G4 FI10 G15 FI11 H14 FI12 G13 FI13 G13 FI14 G13 FI16 E13 FI17 B12 FI19 F13 FI21 F11 FI35 D3 FI36 B3 FI38 C3 FI40 H5 FI42 E10 FI46 C9 FI47 D10 FI49 C12 FI50 D14 FI52 B12 FI53 A4 FI55 B14 FI58 B10 FI59 B10 FI60 F10 FI61 F10 FI64 G10 FI68 H9 FI84 E6 FI93 G7 FI94 H14 FI96 E14 FI97 G13 FI98 G13 FI99 F15 FIA9 D14 FIC1 F13 II27 B4 II32 C9 II33 D9 II36 B9 II37 B9 II38 F8 II41 E1 II42 G8 II43 H8 II49 F5 IIA0 C4 IIA1 D9 IIA2 E9 IIA5 F8 IIA9 G2 IIB0 G2 IIF1 H2 IIF2 G2 IIF3 H3 IIF4 G4 IIF5 F1 IIF6 E1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

B14B I/O 2 CONNECTIONS

B14B

A B C D E F G H

B14b(4x) A-PLOP; B14b AP-SNDL-SC2-OUT; 7I01-1 BC847BS; 3IA4 1K0
B14b(4x) A-PLOP; B14b AP-SNDR-SC2-OUT; 7I01-2 BC847BS; 3IA5 1K0
B14b(4x) A-PLOP; B14b AP-FRONT-L; 7I02-1 BC847BS; 3IA6 1K0
B14b(4x) A-PLOP; B14b AP-FRONT-R; 7I02-2 BC847BS; 3IA7 1K0
B14b A-PLOP_E; B14b AP_SUBW; 7I04 BC847BW; 3IA8 1K0
+5V2_STBY 9IA5; +5V 9IA4; 7I21-2 BC847BPN; 3IC9 22K; 7I21-1 BC847BPN; 3ID1 150K; 6I10 BAS316; 2I15 1u0; +5V
BAS316 6I11; 22K 3I37; IIF6; IIH1; 7I05-1 BC847BPN; 9I50; 1u0 2I11
+5V2-APLOP; 2I39 47n; BC847BPN 7I05-2; IIB0; 3I07 10K; IIA9; BAS316 6IA7; 100K 3I07; 2IA4 1u0; IIH5; IIA5
B14b(4x) A-PLOP; II44; +5V2-APLOP; BAS316 6I12; BC847BPN 7I50-2; 3I34 10K; IIF2; BAS316 6I13; 2I12 1u0
B14b A-PLOP_E; 7I50-1 BC847BPN; IIF1; 3I36 22K; 3I39 22K; SOUND-ENABLE B5a,B21; 3ID8 100K; +5V2-APLOP
+5V2-STBY 9IZZ; +5V 9IZY; 3IH1 47K; 7I49 PDTC144EU; RESET-AUDIO; B14b POR; B4,B21(2X) POR-LINEOUT; 3IW4 6K8; BC847BW 7I08; II47; 4K7 3I00; 3IW5 2K7; II48; 7I07 BC869; 1R5; 3IC1; CORLINEOUT B14b; +11V_S; +11V
FI53; 2IC9 220p; 3I78 75R; RES 9I17 TER-CVBS-OUT-SUB B15a; RES 9I69 CVBS-TER-OUT B2; 9I70 CVBS-SC2_MON-OUT B2; 6I43 BZX384-C6V8; 0001-0015 V_NOM 1I77
+8VA; 2I63 100n; 6I27; BZX384-C6V8 6I71; BAV99 COL; 3I56 100R; II27; AV5-Y_AV7-Y B14c,g; YKC21-4587N FI36; 1I01-3; V_NOM 0001-0015 1I72; 3I55 75R
AV5
+8VA; 6I28; BZX384-C6V8 6I72; BAV99 COL; YKC21-4587N FI38; 1I01-2; V_NOM 0001-0015 1I70; 3I58 75R; 100R; IIA0; AV5-PR_AV7-C B14c,g
+8VA; 6I26; BZX384-C6V8 6I73; BAV99 COL; FI35; V_NOM 0001-0015 1I71; 3I54 100R; AV5-PB B14c,g; 3I55 75R
YKF51-5556; 1I10-A; 1I10-C YKF51-5556; 1I10-D YKF51-5556
AV7
AV4-H; CVBS-SC1_AV1-IN 9I82 res; AV4-V; 3I40 100R; 3I33 100R; FI84; FI83; 6I08; PLVA2656A; 6I09 PLVA2656A; 3I32 1K0; 2IC7 47p; 2IC8 47p; 1K0 3I41; 0001-0015 V_NOM 1I17; 1I18 V_NOM 0001-0015; 1I02
YKC21-4225N; 22K 3IB4; 22K 3IB5; 2I46 1n0; +5V; +11V_S; 9IA6; 9IA7; 9IH9; II46
B14b(4x) A-PLOP; +5V2-APLOP; 2I39 47n; BC847BPN 7I05-2; IIB0; 3I07 10K; IIA9; BAS316 6IA7; 100K 3I07; 2IA4 1u0; IIH5; IIA5; +5V2-APLOP; BAS316 6I12; BC847BPN 7I50-2; 3I34 10K; IIF2; BAS316 6I13; 2I12 1u0; B14b A-PLOP_E; 7I50-1 BC847BPN; IIF1; 3I36 22K; 3I39 22K; SOUND-ENABLE B5a,B21; 3ID8 100K; +5V2-APLOP
+5V2-STBY 9IZZ; +5V 9IZY; 3IH1 47K; 7I49 PDTC144EU; RESET-AUDIO; B14b POR; B4,B21(2X) POR-LINEOUT; 3IW4 6K8; BC847BW 7I08; II47; 4K7 3I00; 3IW5 2K7; II48; 7I07 BC869; 1R5; 3IC1; CORLINEOUT B14b; +11V_S; +11V
B14g B14b B14a,b,c,g; AV6-B; MMC-B; AV4-PR-B_AV2-C; 9ID1 9ID2 res; B14g B14b B14a,b,c,g; AV6-G; MMC-G; AV4-Y-G_AV2-Y-CVBS; 9ID3 9ID4 res; B14g B14b B14a,b,c,g; AV6-R; MMC-R; AV4-PB-B; 9ID5 9ID6 res; B14b B14b B14c B14g B14b B14b,g; AV4-V; YD-ANA; AV6-V; AV6-H; HD-ANA; AV4-H; 9ID7 9ID8 9ID9 9IB2 res
B14d(2x) AR-SC2-IN; 100R 3IC6; II37; 3I79 100R; FI59; 6I45; BZX384-C6V8; 6I46; YKC21-4587N 1I04-1; 22K 3IK2; 100p 2I23; 0001-0015 V_NOM 1I47
B14d(2x) AL-SC2-IN; 100R 3IS2; II36; 3I80 100R; FI58; 6I47; BZX384-C6V8; 6I48; 22K 3IK3; 100p 2I24; 0001-0015 V_NOM 1I48
B14d SNDR-SC2-OUT; 3I69 270R; II32; 3I70 100R; FI46; 6I37; BZX384-C6V8 6I38; 2I22 100p; 0001-0015 V_NOM 1I39; 1I09
B14d AP-SNDR-SC2-OUT
B14d SNDL-SC2-OUT; 3I71 270R; II33; 3I72 100R; FI47; 6I39; BZX384-C6V8 6I40; 2I21 100p; 0001-0015 V_NOM 1I40; YKC21-3226 1I09
B14b AP-SNDL-SC2-OUT; 1I78 0001-0015 V_NOM
B14d(2x) AR-SC1-IN; 100R 3IB2; II41; 3I61 100R; FI41; 6I30; BZX384-C6V8; 6I31; 22K 3IN5; 100p 2I18; 0001-0015 V_NOM 1I38; YKC21-4587N 1I01-1
B14d(2x) AL-SC1-IN; 100R 3IC4; II42; 3I62 100R; FI42; 6I32; BZX384-C6V8; 6I33; 22K 3IN6; 100p 2I19; 0001-0015 V_NOM 1I41
B14b AP-FRONT-L; SNDL-MON-OUT B6a,B14d(2x); 2IC0 16V 10u; 3I89 270R; II38; 3I90 100R; FI60; 6I53; BZX384-C6V8; 6I54; 3IT0 47K 2I26 100p; 0001-0015 V_NOM 1I48; 1106-2 YKC21-4588N; FI21
B14b AP-FRONT-R; SNDR-MON-OUT B6a,B14d(2x); 2IC1 16V 10u; 3I91 270R; IIA5; 3I92 100R; FI61; 6I55; BZX384-C6V8; 6I56; 3IT1 47K 2I27 100p; 0001-0015 V_NOM 1I49
B14b AP_SUBW; B6c SUBW FI93; 2I32 16V 10u; 3I99 270R; II42; 3IA0 100R; FI64; 6I61; BZX384-C6V8 6I62; 3IT4 47K 2I30 100p; 0001-0015 V_NOM 1I04
B6c SND-CENTER-IN; 3I28 100R; II43; 3IA2 100R; FI68; 6I69; BZX384-C6V8 6I70; 3IA3 2K; 2I36 100p; 0001-0015 V_NOM 1I68
YKC21-4588N 1I06-1

B14B

AV2
1I10-B; YKF51-5556; FI17; 1I76 0001-0015 V_NOM; FI52; 3I76 100R; AV4-Y-G_AV2-Y-CVBS; BZX384-C6V8 6I75; +8VA; 2I51 100n; 6I44; BZX384-C6V8; BAV99 COL 6I74; 6I50; BAV99 COL; FI55; 3I83 100R; AV4-PR-B_AV2-C B14a,b,c,g; 1I42 V_NOM 0001-0015; 3I77 75R; YKC21-4587N; 1I04-3; 9I86; 0001-0015 V_NOM 1I75; 1I44 V_NOM 0001-0015 3I66 75R; 6I41; BZX384-C6V8; BAV99 COL 6I76; +8VA
AV4
YKC21-4587N; 1I04-2; FI49; 1I41 V_NOM 0001-0015; 3I74 75R; 3I73 100R; AV4-PB-B B14b,c,g; 100R 3I87 res; CVBS-SC1_AV1-IN B2,B14b
RES
1I70 V_NOM 0001-0015; 3I88 res; BZX384-C6V8 6I52 res; 6I77 BZX384-C6V8 res
B14d SNDR-BO-IN; FI50
B14d SNDL-BO-IN; FI69
B5a,B14aB15b CVBS-Y-RECORD-IN; FIA9
B14a C-RECORD-IN; FI96
B6b SPDIF-BO-OUT; FI16
1I11; 30FMN-BMT-A-TFT
B14d(2x) SNDR-BO-OUT; FI18
B14d(2x) SNDL-BO-OUT; FI19
B14b HD-ANA; 9I09; FIC1
B4 2FH-HD100 9IB1 HD-ANA; 2FH-VD100 9IB2 VD-ANA B4; B14b VD-ANA; 9I11; FI99; 9I92
B14a Y-CVBS-MMC-OUT; 9I93
SDA-S; FI97
SCL-S; FI98
B5a,B21 IRQ-DIGITAL; B14b MMC-R; 9I08; FI14
C-MMC-OUT; 9I97
B14b MMC-G; FI13
B14b MMC-B; FI12
9I04 9I22 9I60; 9I10 FI94; 9I12 FI11
B2,B14g,B15a SC2-B-IN_C-OUT; B2,B14g,B15a SC2-G-IN; B2,B14g,B15a SC2-R_C-IN_AV2

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SSB: I/O 3 Switch

B14C I/O 3 SWITCH

B14a,b(2x),g
B14c,g
B14b,g
B14a,b(2x),g
B14a,b(2x),g
B14c,g
AV4-PR-R_AV2-C
AV5-PR_AV7-C
AV5-Y_AV7-Y
AV4-Y-G_AV2-Y-CVBS
AV4-PB-B
AV5-PB
74HC4053PW 7I33
MDX
+5VIO
SC2-R_C-IN
IN-Y-CVBS-SC2_AV2
SWITCH-SUB
SUB-V
SUB-Y
SUB-U
SC1-FBL-IN
FBL-SC1-IN
SC2-FBL-IN
B15a
B15b
SC2-R_C-IN_AV2
SC2-G-IN
SC2-B-IN_C-OUT
R-SC1_V-IN
G-SC1-IN_Y-IN
B-SC1-IN_U-IN
B2
RESERVED
V-PIP+MAIN-OUT
Y-PIP+MAIN-OUT
U-PIP+MAIN-OUT
R-VGA
G-VGA
B-VGA
B14g(3x)
VA50-PIP
HA50-PIP
TRI-STATE-DVI
TRI-STATE-YPBPR
B6a,B15b
B6a,B15c
B6a,B15b,c
B14f,g,B15b
B14g,B5b
74HC4053PW 7I80
74HC4053PW 7I81
SNDR-DVI-IN
SNDL-DVI-IN
B6a
0001-0015 V_NOM
FIB0
FIB1
YKC21-3226
VS-2FH
HS-2FH
B14c,B19a
B14g(3x),B19a
2FH
* References to B16 only for HDI-sets
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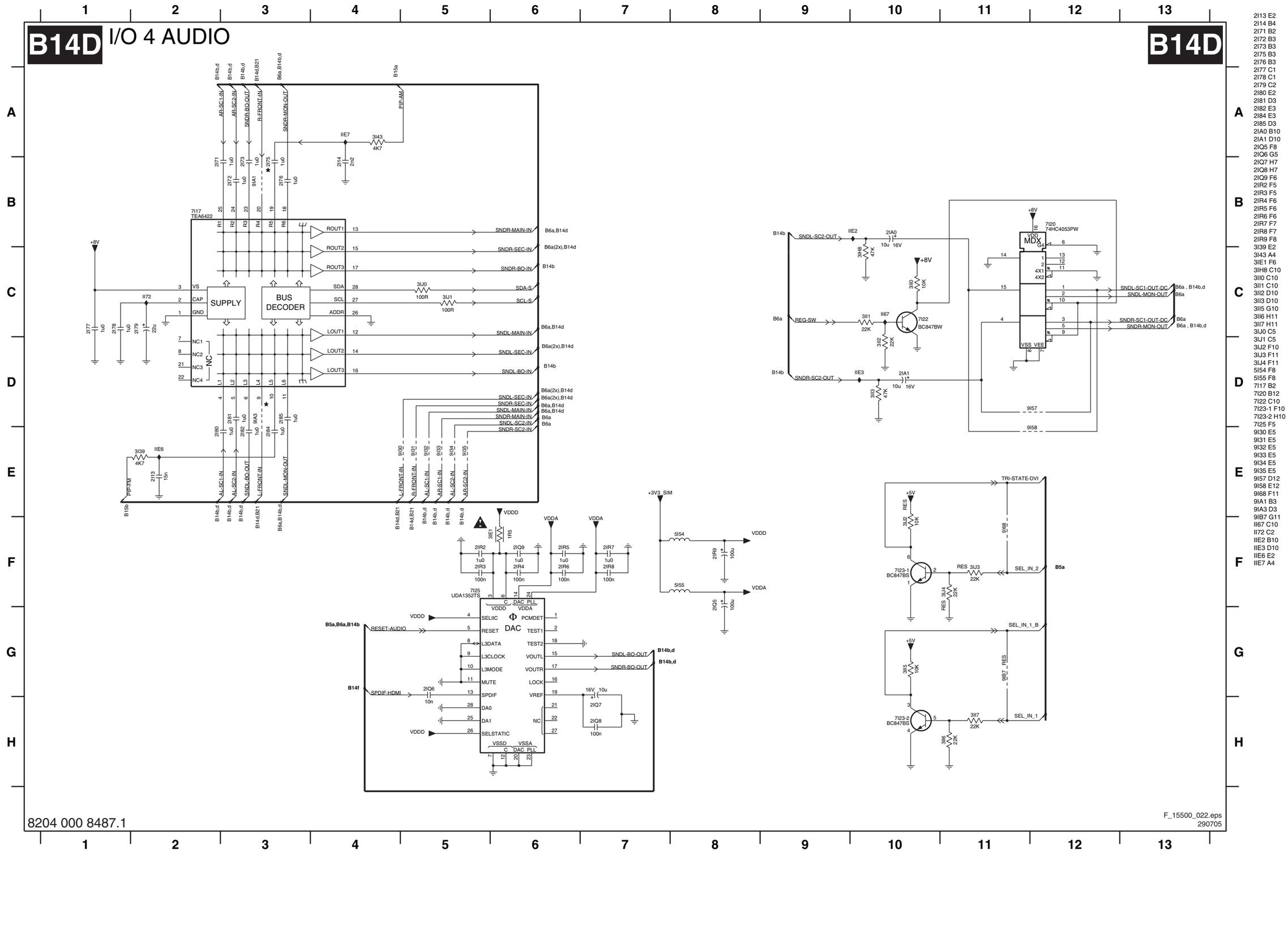
1I07 I2
1I68 I3
1I69 I3
2I35 C2
2I41 B2
2I43 E2
2I44 A2
2I45 A11
2I49 D8
2I57 G3
2I58 G3
2IA9 F9
2IDA F13
2IDB F13
2IDC G13
2IDD G13
2IR0 G7
2IR1 H11
2IS0 A5
2IS1 A5
2IS2 B5
2IS3 C6
2IS4 C5
2IS5 D5
2ISA A9
3IC8 A3
3ID5 B2
3ID9 C3
3IDA E13
3IDB G13
3IE2 G3
3IE3 G3
3IE4 B3
3IE5 C2
3IE6 D2
3IE7 C2
3IE8 D3
3IE9 G3
3IF5 G3
3IF6 H3
3IF7 H2
3IFA F5
3IFB F5
3IFC G5
3IFD H9
3IFE I6
3IFF G9
3IFH I7
3IFL I6
3IG2 B9
3IG5 C9
3IG8 B9
3IH5 E3
3IH6 E3
3IH7 E3
3IJ9 A9
3IL1 A11
3IL2 A11
3IL5 B11
3IL6 A11
3IL8 B11
3IL9 B11
3IM2 C11
3IM3 C11
3IM4 D11
3IM6 D11
3IM7 E11
3IM8 E11
3IMA A7
3IMB A7
3IMC A7
3IMD A6
3IME B6
3IMF B7
3IMG B6
3IMH B6
3IMK B7
3IML B6
3IMM C6
3IMN C6
3IMP C6
3IMR D6
3IMS D7
3IMT D6
3IMV D6
3IMW D6
3IN4 F9
3IN7 E2
3IN8 E2
3IN9 E2
3IO5 D14
3IO6 D13
3IY1 A3
3IY2 A2
3IY3 D3
3IY4 D3
3IY5 B2
3IY6 B3
3IY7 B3
5I07 F13
5I20 E13
6I90 H2
6I91 H3
6I92 H3
6I93 H4
6I94 I6
7I26-1 A11
7I26-2 A12
7I27-1 B3
7I27-2 A3
7I28-1 C11
7I28-2 C11
7I29-1 C3
7I29-2 C3
7I30-1 E11
7I30-2 D11
7I31-1 E3
7I31-2 E3
7I33 B8
7I48-1 B9
7I48-2 C9
7I80 G6
7I81 H10
7I82-1 I6
7I82-2 I6
7I90 A7
7I91 A6
7I92 B7
7I93 C6
7I94 C7
7I95 D6
9I25 D8
9I26 D8
9I27 E8
9I37 A8
9I40 C3
9I54 A3
9I59 B8
9I61 A8
9I73 D13
9I74 D13
9I75 D13
9I83 D3
9I87 E5
9I89 F5
9I90 G5
9IB5 E13
9IB6 F13
9IC1 D10
9IC2 B10
9IC3 A10
9IF0 E6
9IF1 H6
9IF2 H6
9IF3 I10
9IF4 F10
FIB0 I2
FIB1 I3
II17 A3
II18 B2
II19 C3
II20 C2
II21 E3
II22 E2
II50 H2
II51 H3
II57 E11
II58 D11
II59 C11
II60 C11
II90 A11
II91 A11
IIB1 F9
IIB2 H3
IIB3 H3
IIC3 G5
IIH5 E5
IIH6 F5

SSB: I/O 4 Audio

B14D I/O 4 AUDIO



2I13 E2
2I14 B4
2I71 B2
2I72 B3
2I73 B3
2I75 B3
2I76 B3
2I77 C1
2I78 C1
2I79 C2
2I80 E2
2I81 D3
2I82 E3
2I84 E3
2I85 D3
2IA0 B10
2IA1 D10
2IQ5 F8
2IQ6 G5
2IQ7 H7
2IQ8 H7
2IQ9 F6
2IR2 F5
2IR3 F5
2IR4 F6
2IR5 F6
2IR6 F6
2IR7 F7
2IR8 F7
2IR9 F8
3I39 E2
3I43 A4
3IE1 F6
3IH8 C10
3II0 C10
3II1 C10
3II2 D10
3II3 D10
3II5 G10
3II6 H11
3II7 H11
3IJ0 C5
3IJ1 C5
3IJ2 F10
3IJ3 F11
3IJ4 F11
5I54 F8
5I55 F8
7I17 B2
7I20 B12
7I22 C10
7I23-1 F10
7I23-2 H10
7I25 F5
9I30 E5
9I31 E5
9I32 E5
9I33 E5
9I34 E5
9I35 E5
9I57 D12
9I58 E12
9I68 F11
9IA1 B3
9IA3 D3
9IB7 G11
II67 C10
II72 C2
IIE2 B10
IIE3 D10
IIE6 E2
IIE7 A4

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SSB: I/O 5

1I43 F1 1I45 F2 1I79 H5 1I99 H1 1M15 F2
2I00 G3 2I10 A5 2I33 C9 2I34 D10 2I37 A10
2I38 F3 2I40 B10 2I48 D3 2I52 C5 2I53 A1
2I59 D11 2I60 D2 2I62 G9 2I65 F2 2IB7 C4
2IJ5 D6 2IJ6 H9 2IJ7 H9 2IK5 G4 2IK6 G5
2IK7 G6 2IS6 H5 3I00 G8 3IB1 D10 3IB3 D11
3IB6 D8 3IB7 C9 3IB8 G9 3IB9 G9 3IBA E9
3IBB E9 3IBC B2 3IBD B2 3IC0 C9 3IC5 B9
3IC7 B10 3ID2 C4 3ID3 A12 3ID4 B12 3ID6 C6
3IE0 A10 3IF1 D1 3IF2 D2 3IF3 D2 3IF4 D3
3IF8 D4 3IF9 D3 3IGA A12 3IGB B12 3IGC A11
3IGD A10 3IGE B11 3IGF B10 3IGH G8 3IH0 A12
3IH2 B10 3IH4 B11 3IS3 H9 3IS6 H9 3IS8 F2
3IS9 F2 3IW3 B4 3IW9 B4 5I02 D9 5I03 A1
5I04 D10 5I10 C5 5I22 G3 5I45 F5 5I46 F5
5I47 F6 6I03 D12 6I04 C12 6I05 C5 6I99 F1
7I08 B5 7I10 E10 7I11 D5 7I14 A11
7I15 D4 7I16-1 E3 7I16-2 E1 7I40 B11 7I45 C8
7I46 C9 7I75 A2 9I05 F10 9I06 F10 9I24 C2
9I46 C2 9I99 B12 9ID0 F8 FIC4 F2 FIC5 F2
II35 G8 II40 B12 II75 D4 II79 A11 II80 D1
II76 D3 II77 C4 II78 D2 II82 A11 II83 D4
II84 D2 II85 D10 II86 C5 II87 C5 II89 F11
II95 E11 II96 D9

1 2 3 4 5 6 7 8 9 10 11 12 13

B14E I/O 5

B14E

TEMPERATURE SENSOR

SERVICE CONNECTOR

STANDBY
+5V2-STBY
+5V
+3V3_SIM
+8V
+33V
+11V_S
+11V_SF
+11V
+11V_DC
+5V_CON
+5V_VDP
+8V_VDP
SDA-VCHIP
SCL-VCHIP
SDA-S
SCL-S
RES
PDP-GO
CPU-GO
(CPUGO)
SCL-DISP
SDA-DISP
LED1
ON-OFF-LED
SURR-R
SURR-RF
SURR-L
SURR-LF
EMC HOLE
T 3000mA
PCA9515DP
LM75ADP
TS2431
BC847BW
BC847BS
BC817-25
BAV99 COL
PLVA2656A
S3B-EH

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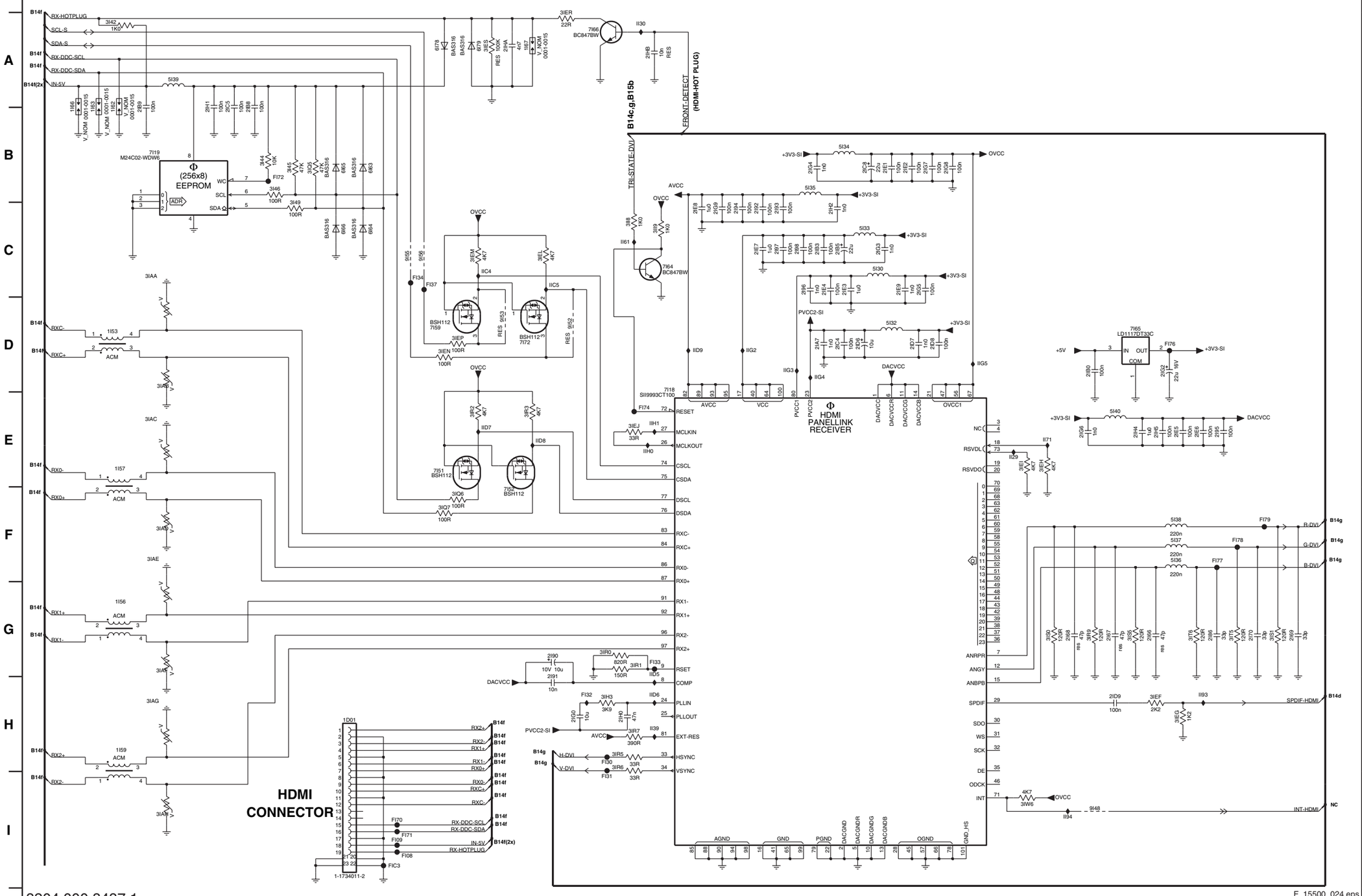
SSB: I/O 6 Digital Input

B14F I/O 6 DIGITAL INPUT

B14F



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1D01 H4
1153 D1
1156 G1
1157 E1
1159 H1
1162 A1
1163 A1
1166 A1
1167 A6
2I66 G12
2I67 G12
2I68 G11
2I69 G14
2I70 G13
2I86 G13
2I90 G6
2I91 H6
2I92 C8
2I93 C8
2I94 C8
2I95 E13
2I96 C9
2I97 C8
2I98 C9
2IA7 D9
2IB0 D12
2IB3 C9
2IB5 C9
2IB8 A3
2IB9 A2
2IC4 D9
2IC5 A3
2IC8 B9
2ID6 D9
2ID7 D10
2ID8 D10
2ID9 H12
2IE1 B10
2IE2 B10
2IE3 C9
2IE4 C9
2IE5 E13
2IE6 E13
2IE7 C8
2IE8 C8
2IE9 C10
2IG0 H6
2IG2 D12
2IG3 C9
2IG4 B9
2IG5 C10
2IG6 E12
2IG7 B10
2IG8 B10
2IG9 C8
2IH0 H7
2IH1 A2
2IH2 C9
2IH4 E12
2IH5 E12
2IHA A6
2IHB A7
3I42 A1
3I44 B3
3I45 B3
3I46 B3
3I49 C3
3IAA C2
3IAB D2
3IAC E2
3IAD F2
3IAE F2
3IAF G2
3IAG H2
3IAH I2
3IEF H12
3IEG H13
3IEH E11
3IEI E11
3IEJ E7
3IEL C6
3IEM C5
3IEN D5
3IEP D5
3IER A6
3IES A5
3IH3 H7
3II8 C7
3II9 C7
3IO5 B3
3IO6 F5
3IO7 F5
3IR0 G7
3IR1 G7
3IR2 E5
3IR3 E6
3IR5 H7
3IR6 H7
3IR7 H7
3IR9 G12
3IS0 G11
3IS1 G14
3IS5 G12
3IT5 G13
3IT6 G13
3IW6 I11
5I30 C9
5I32 D10
5I33 C9
5I34 B9
5I35 B9
5I36 F13
5I37 F13
5I38 F13
5I39 A2
5I40 E12
6I63 B4
6I64 C4
6I65 B4
6I66 C4
6I78 A5
6I79 A5
7I18 D7
7I19 B2
7I51 E5
7I52 E6
7I59 D5
7I64 C7
7I65 D12
7I66 A7
7I72 D6
9I48 I12
9I52 D6
9I53 D6
9I55 C5
9I56 C5
FI08 I4
FI09 I4
FI30 H7
FI31 I7
FI32 H6
FI33 G7
FI34 C5
FI37 C5
FI70 I4
FI71 I4
FI72 B3
FI74 E7
FI76 D13
FI77 F13
FI78 F13
FI79 F13
FIC3 I4
II29 E11
II30 A7
II39 H7
II61 C7
II71 E11
II93 H13
II94 I11
IIC4 C5
IIC5 C6
IID5 G7
IID6 H7
IID7 E5
IID8 E6
IID9 D8
IIG2 D8
IIG3 D9
IIG4 D9
IIG5 D11
IIH0 E7
IIH1 E7

SSB: I/O 7

2IB6 G10 2ID0 D1 2ID1 D2 2ID2 C2 2ID3 C2 2ID4 C2 2ID5 C2 2IF1 G14 2IF2 E15 2IF3 C14 2IF4 I8 2IF5 I8 2IF7 C3 2IF8 D7 2IF9 D7 2IH6 D7 2IH7 C7 2IH8 C7 2IH9 C7 2IK1 C10 2IN8 E9 2IN9 E9 2IP0 E3 2IP8 E3 3IG0 G14 3IG1 G14 3IG3 E14 3IG4 E14 3IG6 C14 3IG7 C13 3IHA G14 3IHB E14 3IHC D14 3IHD C15 3IHE E15 3IK0 G9 3IK6 H10 3IS7 G10 3IT7 G8 3IT8 G8 3IU0 H7 3IU4 H10 3IV4 C12 3IV5 D11 3IV6 D11 5I11 E2 5I12 I8 5I13 H8 5I42 E7 7I42 H10 7I55 C9 7I56 C14 7I57 E14 7I58 G14 9I29 B9 9I36 B4 9I38 B4 9I44 B4 9I81 F10 9I88 F10 9I91 B9 9I98 B9 FI25 E2 FIB5 I8 FIC2 E7 IIH2 D11 IIH3 C11 IIH4 C11

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

B14G I/O 7

B14G

A B C D E F G H I

RGB-OUTPUT SELECTION

RGB-OUTPUT SELECTION

9I38 RES
9I36 RES
9I44 RES
9I29 RES
9I91 RES
9I98 RES
9I88 RES
9I81 RES

+5VIO
2IF7 220n
2IK1 220n
7I71 BA7657F
7I55 BA7657F
VCC 20
R1-IN 1
R2-IN 7
G1-IN 3
G2-IN 9
B1-IN 5
B2-IN 11
VD1-IN 12
VD2-IN 13
HD1-IN 24
HD2-IN 23
HD-S-SIG-DET 2
C-V-IN 18
CTL 16
GROUND 4 6 8 10
R-OUT 21
G-OUT 19
B-OUT 15
VD-OUT 14
HD-OUT 22
C-S-OUT 17
DET
SYNC SEPA
LOGIC

B14b AV6-R 2ID5 6.3V 22u
B14b AV5-PR_AV7-C 2ID4 6.3V 22u
B14b AV6-G 2ID3 6.3V 22u
B14b AV5-Y_AV7-Y 2ID2 6.3V 22u
B14b AV6-B 2ID1 6.3V 22u
B14b AV5-PB 2ID0 6.3V 22u
B14b AV6-V
B14b AV6-H
2IP8 100n
2IP0 100n
SWITCH-MAIN B14c,g,B15b
5I11 FI26

B14f R-DVI 2IH9 6.3V 22u
B14f G-DVI 2IH8 6.3V 22u
B14f B-DVI 2IH7 6.3V 22u
B14f V-DVI 2IH6 6.3V 22u
B14f H-DVI 2IF8 6.3V 22u
2IF9 6.3V 22u
SEL_IN_1_B FIC2 5I42
2IN8 100n
2IN9 100n

R-VGA 3IV4 1K0 RES B14g
G-VGA 3IV5 1K0 RES B14g
B-VGA 3IV6 1K0 RES B14g
IIH4
IIH3
IIH2
VS-2FH
HS-2FH

V-2FH-AD-OUT 3IT7 1K0 AV3-CVBS-IN B14b(2x)
H-2FH-DIV-2 FI25 3IT8 1K0 3IK0 1K0
HS-2FH B14c,g(2x),B19a 2IB6 47p 3IU4 470R 3IK6 2K2 7I42 BC847BW 3IS7 470R +3V3-AD HS-DET B19d

+8V 3IU0 2R2 5I13 5I12 FIB5 +8V-VIDEO 2IF4 47u 16V 2IF5 100n

+8V-VIDEO
R-VGA B14g 3IG7 10R 7I56 BC847BW 2IF3 100n 3IHD 100R 3IG6 560R 3IHC 100R
V-2FH B14c
C-SC2_SVHS-IN B2
SC2-R_C-IN_AV2 B2,B14b,B15a

+8V-VIDEO
G-VGA B14g 3IG4 10R 7I57 BC847BW 2IF2 100n 3IHE 100R 3IG3 560R 3IHD 100R
Y-2FH B14c
Y-CVBS-SC2_AV2-IN B2
SC2-G-IN B2,B14b,B15a

+8V-VIDEO
B-VGA B14g 3IG1 10R 7I58 BC847BW 2IF1 100n 3IHA 100R 3IG0 560R
U-2FH B14c
SC2-B-IN_C-OUT B2,B14b,B15a

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SSB: PIP HIP

B15A PIP HIP

B15A

HIP

SAW-FILTER AUDIO 1P04 OFWK9656L

SAW-FILTER VIDEO 1P05 OFWM1967L

SAW-FILTER VIDEO 1P06 OFWK3953L

MODULATOR COIL

SUPPLY

CTRL

SYNC

IF DEM

GROUP DELAY COR.

I/O SWITCH

LUMA & CHROMA PROC.

OUTP SWITCH

7P09 TDA9321H/N2

7P11 TDA9181

2H/4H DELAY

ADAPTIVE COMB FILTER

SAND-CASTLE

FILTER TUNING

CLOCK GEN

COIL 40.4 SUPPRESSION

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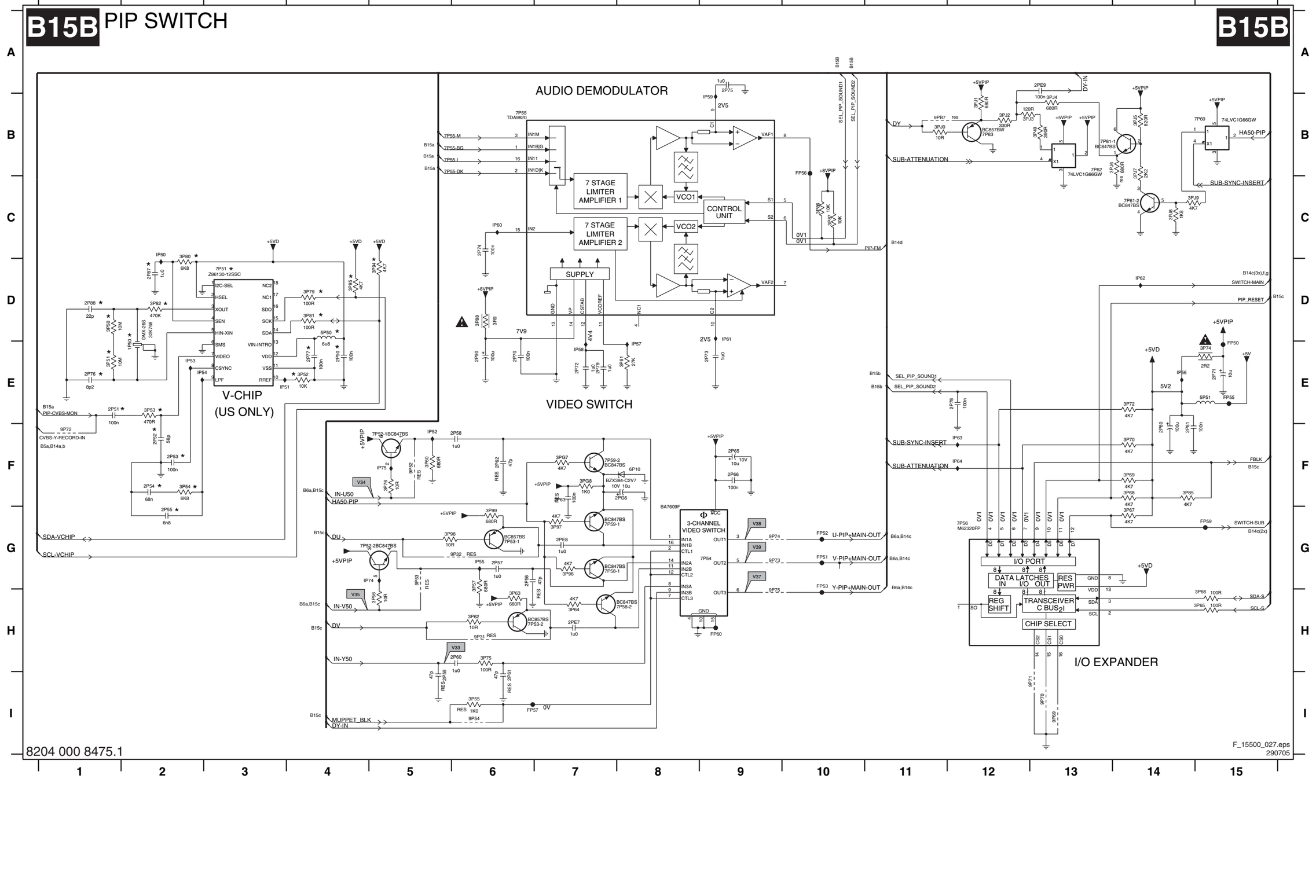
1P00 E11	3P16 G5	9P22 G11	
1P03 E13	3P17 G2	9P23 H6	
1P04 C4	3P18 G2	9P24 G9	
1P05 E4	3P19 G2	9P25 F9	
1P06 G4	3P20 H1	9P26 E11	
1P07 H7	3P21 B7	9P27 E11	
1P08 E5	3P22 B10	9P28 F12	
1P09 E6	3P23 B10	9P29 F13	
1P10 E13	3P24 B11	9P30 F7	
1P11 F14	3P25 D7	AP02 C1	
1P12 E12	3P26 D7	AP04 C4	
2P00 B1	3P27 E6	AP05 C5	
2P01 B2	3P28 E6	AP06 C5	
2P02 B2	3P29 E11	AP07 C5	
2P03 C1	3P30 F9	AP09 G3	
2P04 D2	3P31 F8	FP02 B8	
2P05 D5	3P32 F7	FP03 C1	
2P06 G3	3P33 I6	FP08 B5	
2P07 G3	3P34 G9	FP11 I7	
2P08 H3	3P35 G9	FP12 G9	
2P09 B8	3P36 H7	FP13 F7	
2P10 F8	3P37 H7	FP14 E6	
2P11 F8	3P38 H6	FP15 D7	
2P12 F8	3P39 G7	FP16 C7	
2P13 F8	3P40 F6	FP17 F7	
2P14 F8	3P41 D13	FP23 B11	
2P15 F8	3P42 D13	FP24 D12	
2P16 F7	3P43 D13	FP25 D12	
2P17 E7	3P44 F9	FP26 D12	
2P18 D7	3P45 H11	FP27 D5	
2P19 D6	3P46 H11	FP29 H11	
2P20 C7	3P47 I12	FP36 G9	
2P21 C7	3P48 B8	FP37 C12	
2P22 C6	3P71 F7	FP38 C12	
2P23 B7	3P90 E12	FP39 C12	
2P24 B7	3P91 E13	FP40 C12	
2P25 B6	3P92 E14	FP41 H8	
2P26 B8	3P93 E14	FP42 H9	
2P27 B8	5P00 A2	IP00 B5	
2P28 B9	5P01 B3	IP01 E5	
2P29 B11	5P02 C1	IP02 B5	
2P30 B11	5P03 A1	IP03 E5	
2P31 C11	5P04 D3	IP10 H8	
2P32 C11	5P05 E5	IP17 C7	
2P33 C11	5P06 E6	IP20 B8	
2P34 F11	5P07 H2	IP21 B9	
2P35 F11	5P08 C6	IP22 D5	
2P36 F11	5P09 B7	IP23 A2	
2P37 F11	5P10 B7	IP24 A3	
2P38 F12	5P11 F7	IP25 B2	
2P39 F12	6P00 E2	IP26 B4	
2P40 F12	6P01 E2	IP27 B3	
2P41 F13	6P02 G2	IP28 B3	
2P42 F13	6P03 D2	IP29 B4	
2P43 F13	7P00 D2	IP30 A3	
2P44 F14	7P01 F2	IP31 B3	
2P45 C11	7P02 H1	IP32 C3	
2P46 D11	7P03 F5	IP33 B6	
2P47 D11	7P04 G5	IP34 B7	
2P48 D11	7P05 D6	IP35 B7	
2P49 D6	7P06 E7	IP36 B10	
2P91 G11	7P07-1 H7	IP37 H11	
2P92 I12	7P07-2 I6	IP38 H11	
2P93 G14	7P08 F9	IP39 H12	
2P94 G14	7P09 D9	IP40 G13	
2P95 G13	7P10 D13	IP41 G14	
2P96 G12	7P11 G11	IP42 G13	
2P97 F14	9P00 E6	IP43 G14	
2P98 B7	9P01 C3	IP68 F2	
2P99 B7	9P02 D5	IP69 F5	
2PG0 C7	9P03 D6	IP70 G5	
2PG1 C7	9P04 E2	IP71 E7	
2PG2 F7	9P05 E5	IP72 F9	
3P00 B2	9P06 E7	IP73 D14	
3P01 B3	9P07 F7	cP00 A8	
3P02 B3	9P08 G6	cP01 A8	
3P03 B5	9P09 F6		
3P04 B5	9P10 F3		
3P05 B5	9P11 E3		
3P06 B5	9P12 G8		
3P07 D2	9P13 D11		
3P08 D2	9P14 G6		
3P09 E3	9P15 E7		
3P10 D5	9P16 E3		
3P11 E5	9P17 H6		
3P12 E2	9P18 G7		
3P13 F2	9P19 H5		
3P14 F5	9P20 F11		
3P15 G5	9P21 G11		

SSB: PIP Switch

1P50 E2	2P54 F2	2P59 I5	2P65 F9	2P73 E9	2P78 E12	2P88 D1	2PG6 F8	3P53 E2	3P60 F5	3P65 H15	3P70 F14	3P79 D4	3P86 C10	3P96 G7	3PG8 F7	3PJ4 B13	3PJ9 C14	7P52-1 F5	7P55 B6	7P59-2 F7	7P63 B12	9P54 I6	9P73 G9	FP51 G10	FP57 I6	IP52 F5	IP57 E8	IP62 D14
2P50 E4	2P55 G2	2P60 H6	2P66 F9	2P74 C6	2P79 E7	2P90 E6	3P49 B13	3P54 F2	3P61 E8	3P66 H15	3P72 E14	3P80 C2	3P87 C10	3P97 G7	3PJ0 B11	3PJ5 B14	5P50 D4	7P52-2 G4	7P56 G12	7P60 B15	9P31 H6	9P69 I13	9P74 G9	FP52 G10	FP59 G15	IP53 E2	IP58 E7	IP63 F12
2P51 E1	2P56 G6	2P61 I6	2P70 E6	2P75 A9	2P80 F14	2PE7 H7	3P50 D1	3P55 I6	3P62 H6	3P67 G14	3P74 E15	3P81 D4	3P88 D6	3P98 G5	3PJ1 B12	3PJ6 B14	5P51 E15	7P53-1 G6	7P58-1 G7	7P61-1 B14	9P32 G6	9P70 I13	9P75 H9	FP53 G10	FP60 H9	IP54 E2	IP59 B9	IP64 F12
2P52 F2	2P57 G6	2P62 F6	2P71 E15	2P76 E1	2P81 F14	2PE8 G7	3P51 E1	3P56 H5	3P63 H6	3P68 F14	3P75 H6	3P82 C2	3P94 D5	3P99 G6	3PJ2 B12	3PJ7 B14	6P10 F8	7P53-2 H6	7P58-2 H7	7P61-2 C14	9P32 F5	9P71 I13	9PB7 B11	FP55 E15	IP50 C2	IP55 G6	IP60 C6	IP64 G4
2P53 F2	2P58 F6	2P63 F7	2P72 E7	2P77 E4	2P87 D2	2PE9 A13	3P52 E4	3P57 G6	3P64 H7	3P69 F14	3P76 F5	3P85 D4	3P95 D4	3P97 F7	3PJ3 B12	3PJ8 C14	7P51 D3	7P54 G9	7P59-1 G7	7P62 B13	9P53 G5	9P72 F1	FP50 E15	FP56 B10	IP51 E3	IP56 E14	IP61 D9	IP75 F5



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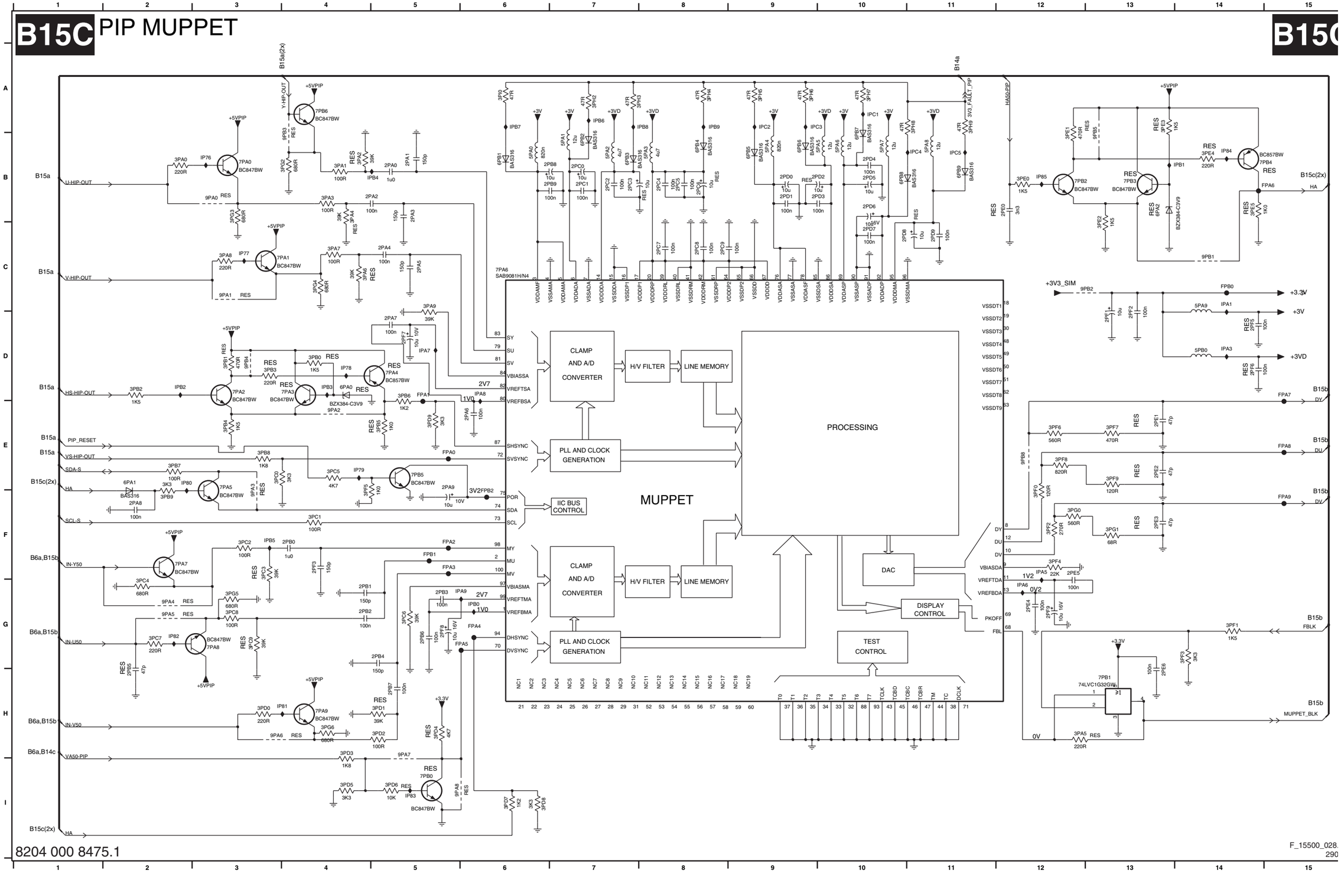
SSB: PIP Muppet

2PA0 B5	2PA7 D5	2PB4 G5	2PC1 B7	2PC8 C8	2PD5 B10	2PE2 E13	2PF3 F4	3PA1 B4	3PA8 C3	3PB5 E5	3PC2 F3	3PC9 G3	3PD6 I5	3PE3 A13	3PF4 F12	3PG1 F13	3PH3 A7	3PI0 A6	5PA6 B10	6PA2 B13	6PB7 B10	7PA4 D5	7PB1 H13	9PA1 C3	9PA8 I5	FPA0 E5	FPA7 D15	IP77 C3	IP84 B14	IPA8 D6	IPB5 F3	IPC3 A9
2PA1 B5	2PA8 F2	2PB5 H2	2PC2 B7	2PC9 C8	2PD6 B10	2PE3 F13	2PF5 D14	3PA2 B4	3PA9 C5	3PB6 D5	3PC3 F3	3PD0 H3	3PD7 I6	3PE4 B14	3PF5 F4	3PG2 B4	3PH4 A8	5PA0 B6	5PA7 B10	6PB1 B6	6PB8 B10	7PA5 E3	7PB2 B12	9PA2 E4	9PB1 C14	FPA1 D5	FPA8 E15	IP78 D4	IP85 B12	IPA9 G6	IPB6 A7	IPC4 B11
2PA2 B5	2PA9 E5	2PB6 G5	2PC3 B7	2PD0 B9	2PD7 C10	2PE4 G12	2PF6 D14	3PA3 B4	3PB0 D4	3PB7 E2	3PC4 G2	3PD1 H5	3PD8 I6	3PE5 B14	3PF6 E12	3PG3 B3	3PH5 A9	5PA1 B7	5PA8 B11	6PB2 B7	6PB9 B11	7PA6 C6	7PB3 B13	9PA3 F3	9PB2 C13	FPA2 F5	FPA9 F15	IP79 E4	IPA1 C14	IPB0 G6	IPB7 A6	IPC5 B11
2PA3 B5	2PB0 F4	2PB7 H5	2PC4 B8	2PD1 B9	2PD8 C10	2PE5 F12	2PF7 D5	3PA4 B4	3PB1 D3	3PB8 E3	3PC5 E4	3PD2 H5	3PD9 E5	3PF0 F12	3PF7 E13	3PG4 C4	3PH6 A9	5PA2 B7	5PA9 C14	6PB3 B7	7PA0 B3	7PA7 F2	7PB4 B14	9PA4 G2	9PB3 B4	FPA3 F5	FPB0 C14	IP80 E2	IPA3 D14	IPB1 B14	IPB8 A8	
2PA4 C5	2PB1 G4	2PB8 B7	2PC5 B8	2PD2 B10	2PD9 C11	2PE6 H13	2PF8 G5	3PA5 H12	3PB2 D2	3PB9 F2	3PC6 G5	3PD3 H4	3PE0 B12	3PF1 G14	3PF8 E12	3PG5 G3	3PH7 A10	5PA3 B8	5PB0 D14	6PB4 B8	7PA1 C3	7PA8 G3	7PB5 E5	9PA5 G2	9PB4 D3	FPA4 G6	FPB1 F5	IP81 H4	IPA5 F12	IPB2 D2	IPB9 A8	
2PA5 C5	2PB2 G4	2PB9 B7	2PC6 B8	2PD3 B10	2PE0 B12	2PF1 D13	2PF9 G12	3PA6 C4	3PB3 D3	3PC0 E3	3PC7 G2	3PD4 H5	3PE1 B12	3PF2 F12	3PF9 E13	3PG6 H4	3PH8 A11	5PA4 B9	6PA0 D4	6PB5 B9	7PA2 D3	7PA9 H4	7PB6 A4	9PA6 H3	9PB5 B13	FPA5 G6	FPB2 F6	IP82 G2	IPA6 G12	IPB3 D4	IPC1 A10	
2PA6 E6	2PB3 G5	2PC0 B7	2PC7 C8	2PD4 B10	2PE1 E13	2PF2 D13	3PA0 B2	3PA7 C4	3PB4 E3	3PC1 F4	3PC8 G3	3PD5 I4	3PE2 C13	3PF3 G14	3PG0 F12	3PH2 A7	3PH9 A11	5PA5 B10	6PA1 E2	6PB6 B9	7PA3 D4	7PB0 I5	9PA0 B3	9PA7 H5	9PB8 E12	FPA6 B15	IP76 B3	IP83 I5	IPA7 D5	IPB4 B5	IPC2 A9	



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290

SSB: HDI A/D Converter

B19A HDI A/D CONVERTER

B19A

A/D CONVERTER

+3V3-AD
7L02 LD1117DT33C
FL17
+5V
IN OUT COM
FE02
IL10 VD
IL11 VDD
IL12 PVD
5L16 5L13 5L17 5L14 5L18 5L15
2L19 22u 6.3V 2L33 100n
2L34 1u 100n
2L58 22u 6.3V 2L01 2L02 2L03 2L04 2L05 2L06 2L07 2L10 100n
2L00 22u 6.3V 2L12 2L13 2L14 2L15 2L16 2L17 100n
2L51 22u 6.3V 2L08 2L09 2L20 2L21 100n

7L01 AD9883AKST
VDD PVD VD PVD
11 22 23 69 78 79 26 27 39 42 45 46 51 52 59 62 34 35
to EPLD

B14g V-2FH AL06 3L04 100R 5L02 470n FL09 3L29 150R 2L52 47n 54 RAIN
2L48 RES 4p7 2L28 39p RES 3L19 680R

B14g(2x)B19a Y-2FH AL07 3L05 100R 5L04 470n FL10 3L30 150R 2L57 47n 48 GAIN
RES 2L49 4p7 2L29 39p RES 3L20 680R RES 3L02 470R RES 2L18 47p RES 2L59 1n0

B14g U-2FH AL08 3L11 100R 5L06 470n FL12 3L31 150R 2L54 47n 43 BAIN
2L50 RES 4p7 2L30 39p RES 3L21 680R
2L11 100n IL06 37 MIDSCV

CLAMP A/D 8

ROUTA0 77 UV-AD-0
ROUTA1 76 UV-AD-1
ROUTA2 75 UV-AD-2
ROUTA3 74 UV-AD-3
ROUTA4 73 UV-AD-4
ROUTA5 72 UV-AD-5
ROUTA6 71 UV-AD-6
ROUTA7 70 UV-AD-7
B19d

GOUTA0 9 Y-AD-0
GOUTA1 8 Y-AD-1
GOUTA2 7 Y-AD-2
GOUTA3 6 Y-AD-3
GOUTA4 5 Y-AD-4
GOUTA5 4 Y-AD-5
GOUTA6 3 Y-AD-6
GOUTA7 2 Y-AD-7
B19d

BOUTA0 19 U-AD-0
BOUTA1 18 U-AD-1
BOUTA2 17 U-AD-2
BOUTA3 16 U-AD-3
BOUTA4 15 U-AD-4
BOUTA5 14 U-AD-5
BOUTA6 13 U-AD-6
BOUTA7 12 U-AD-7
B19d

B14c,g HS-2FH FL11 3L32 470R 30 HSYNC
B14c(2x) VS-2FH FL13 3L33 470R 31 VSYNC
B14g(2x),B19a Y-2FH 3L12 470R 2L56 1n0 49 SOGIN
2L60 47p 470R 3L28 38 CLAMP
29 COAST
33 FILT

SYNC PROCESSING AND CLOCK GENERATION

HSOUT 66 FL15 H-2FH-AD-OUT B19d
VSOUT 64 FL03 V-2FH-AD-OUT B14g,B19d
SOGOUT 65 FL04 SYNCDET B19d
DATACK 67 AL02 CLK-2FH B19b

COAST

PVD
2L31 47n IL07
2L26 33n 3L08 2K7 IL08
2L27 4n7
2L32 3n3

SERIAL REGISTER AND PWR MANAGMENT

3L06 100R
3L03 100R
VD IL09
57 SDA
56 SCL
55 A0

REF
REF-BYPASS 58 FL05
100n 2L25

GND
1 10 20 21 24 25 28 32 36 40 41 44 47 50 53 60 61 63 68 80

SDA-F3 B19b,d
SCL-F3 B19b,d

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2L00 B3 IL11 B5
2L01 A4 IL12 C5
2L02 A4
2L03 A4
2L04 A4
2L05 A4
2L06 A5
2L07 A5
2L08 C4
2L09 C4
2L10 A5
2L11 F6
2L12 B4
2L13 B4
2L14 B4
2L15 B4
2L16 B4
2L17 B5
2L18 E5
2L19 A1
2L20 C4
2L21 C4
2L25 H10
2L26 H2
2L27 H2
2L28 D3
2L29 E3
2L30 F3
2L31 H2
2L32 H2
2L33 A2
2L34 A3
2L48 D2
2L49 E2
2L50 F2
2L51 C3
2L52 C6
2L54 F6
2L56 G4
2L57 E6
2L58 A3
2L59 E5
2L60 G4
3L02 E5
3L03 H5
3L04 C2
3L05 E2
3L06 H5
3L08 H3
3L11 F2
3L12 G3
3L19 D4
3L20 E4
3L21 F4
3L28 G6
3L29 C4
3L30 E4
3L31 F4
3L32 G4
3L33 G5
5L02 C2
5L04 E2
5L06 F2
5L13 A3
5L14 B3
5L15 C3
5L16 A3
5L17 B3
5L18 B3
7L01 C6
7L02 A2
AL02 G10
AL06 C1
AL07 E1
AL08 F1
FE02 A3
FL03 G10
FL04 G10
FL05 H10
FL09 C3
FL10 E3
FL11 G4
FL12 F3
FL13 G4
FL15 G10
FL17 A1
IL06 F6
IL07 H3
IL08 H3
IL09 H6
IL10 A5

SSB: EPLD Control

B19B EPLD CONTROL

B19B

FOR FACTORY USE ONLY

I2C BUFFER

FOR FACTORY USE ONLY

I2C BUFFER

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1E02 B9	3E84 G10
1E04 G6	3E85 G12
2D03 E5	3E86 G11
2D04 F3	3E87 I11
2D09 G3	3E88 H5
2D10 G3	3E89 I5
2D11 G3	5E50 H5
2D12 G3	5E51 I5
2D15 I5	5E52 G5
2E01 G4	5E53 D6
2E03 G4	5E54 F5
2E06 G4	5E55 E11
2E41 F5	5E56 H11
2E42 F6	5E58 G8
2E43 F4	6E51 E5
2E49 E3	6E52 G5
2E50 E3	6E53 G5
2E51 E2	6E54 I5
2E52 G8	6E55 H5
2E54 G4	6E56 E12
2E55 H4	7E01 E5
2E56 H4	7E02 B2
2E57 H4	7E03 F11
2E58 H4	7E04 G11
2E59 H4	7E05 D3
2E62 H3	7E06 I12
2E65 H3	7E10 H8
2E66 H3	7E12-1 F3
2E67 H3	7E12-2 E2
2E68 I4	7E25 C3
2E69 I4	7E26 B3
2E70 I4	7E27 C3
2E71 I4	7V01-1 B5
2E72 I3	7V01-6 A12
2E73 I3	9E57 I8
2E74 I3	9E58 I8
2E75 I3	9E59 E5
2E77 I2	9E60 C7
2E78 I2	9E61 D7
2E79 F5	9E62 C7
2E80 F5	9E63 C7
2E81 I2	9E64 C7
2E82 G3	9E65 D7
2E83 G4	FE05 F5
2E84 B1	FE50 I10
2E86 E2	FE51 B8
2E87 E6	FE52 A9
2E88 A8	FE53 C7
2E89 B8	FE54 C9
2E90 B8	FE55 B8
2E91 C8	FE56 D6
2E92 B9	FE57 H4
2E93 G12	FE58 I4
2E94 E12	FE59 G3
2E95 I12	FE60 F3
2E96 B4	FE61 E3
2E97 C4	FE66 B9
2E98 C4	FE67 E2
2E99 F6	IE20 B4
3E00 B2	IE21 C3
3E01 B4	IE22 B3
3E02 C4	IE23 C4
3E03 D4	IE24 C4
3E20 F11	IE25 C3
3E21 H11	IE26 E2
3E50 B4	IE27 E2
3E51 B4	IE29 G5
3E52 B4	IE30 H5
3E53 B7	IE31 I5
3E54 G5	IE32 G5
3E55 E2	IE33 E12
3E56 E2	IE34 C3
3E57 E2	IE35 C4
3E58 G5	IE36 B4
3E59 B3	IE37 E5
3E60 A8	
3E61 E6	
3E62 D5	
3E63 B7	
3E64 B3	
3E69 H8	
3E70 H9	
3E73 B6	
3E74 I5	
3E77 A8	
3E78 A8	
3E79 B8	
3E80 C8	
3E81 E12	
3E82 F12	
3E83 F11	

SSB: EPLD OSD

B19C EPLD OSD

B19C

A/D CONVERTER

SYNC PROCESSING AND CLOCK GENERATION

SERIAL REGISTER AND PWR MANAGMENT

CLAMP

A/D

REF

7E24 AD9283BRS-50

7E23 AD9883AKST

7E22 BC847BW

8-BIT ADC

BACKLIGHT-DIMMING

B19d

B19c,d CLK-OSD

B19c CLK-BL

B19a,b,d SDA-F3

B19a,b,d SCL-F3

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2E02 D1
2E04 D2
2E05 B4
2E07 A5
2E08 C5
2E09 A6
2E10 B5
2E11 B6
2E12 B6
2E13 B6
2E14 B6
2E15 B6
2E16 B5
2E17 B6
2E18 B6
2E19 B6
2E20 C6
2E21 D8
2E22 D7
2E23 E8
2E24 E7
2E25 F7
2E26 G7
2E27 G7
2E28 H4
2E29 H4
2E30 H4
2E32 F1
2E34 H4
2E35 I12
2E39 B1
2E48 G6
2E53 G6
3E04 D1
3E05 C1
3E06 D6
3E07 E6
3E08 F6
3E09 E1
3E10 E2
3E11 G6
3E12 G6
3E13 E1
3E14 G7
3E15 F1
3E16 H5
3E18 H7
3E19 H7
3E37 B1
3E90 D1
3E91 H12
5E00 A5
5E01 A5
5E02 B5
5E03 C5
7E22 E1
7E23 C8
7E24 B2
9E74 E2
9E78 B3
AL10 H12
FE01 G6
FE03 G6
FE04 H12
FL01 A4
IE00 H4
IE01 H5
IE03 E1
IE04 E2
IE05 F2
IL01 A7
IL02 B7
IL03 C7
IL05 G8

SSB: EPLD I/O

B19D EPLD I/O

B19D

7V01-2 EP1C12F256C8 — BANK 1

7V01-5 EP1C12F256C8 — BANK 4

7V01-3 EP1C12F256C8 — BANK 2

7V01-4 EP1C12F256C8 — BANK 3

7V02 DS90C385MTD — TTL PARALLEL-TO-LVDS

7V03 MSM56V16160F-7T3 — DRAM 512K X 16 X 2

LVDS TRANSMITTER

2V06 B13 9E72 F8
2V07 A11 9E73 F8
2V08 A12 9E75 E3
2V09 A12 9E76 F3
2V10 A12 9E77 D8
2V11 E6 AV01 F9
2V12 D6 IV01 E3
2V16 C13 IV02 A14
2V17 C14 IV03 A14
2V18 D13 IV04 A11
2V19 D14 IV05 B7
2V20 E13
2V21 E14
2V22 G14
2V23 G14
2V24 G14
2V25 G14
3V01 H12
3V02 H12
3V07 G10
3V08 B13
3V14 A11
3V15 A14
3V16 A14
3V17 H12
3V18 I2
3V19 I12
3V20 I12
3V21-1 H8
3V21-2 H7
3V21-3 H8
3V21-4 G7
3V22-1 H8
3V22-2 H7
3V22-3 H8
3V22-4 H7
3V23-1 H7
3V23-2 H8
3V23-3 H7
3V23-4 H8
3V24-1 H7
3V24-2 H8
3V24-3 H7
3V24-4 I8
3V25 G12
3V26 H12
3V27 H11
3V28 H12
3V29 H11
3V30 H12
3V31 I11
3V32 I12
3V33 I11
3V34 I12
3V35 F6
3V36 B6
3V37 G2
3V38 G1
3V39 H5
3V40 H1
3V50 D5
3V51 D6
3V52 D6
3V53 E6
3V54 E6
3V55 E5
3V56 F5
3V57 F6
5V06 A12
5V07 A12
5V08 A13
6V01 A11
6V02 A13
6V03 A13
6V05 I2
6V06 D7
6V07 E7
7V01-2 A2
7V01-3 D2
7V01-4 G3
7V01-5 A7
7V02 B11
7V03 G6
7V04-1 D6
7V04-2 F6
7V06 F6
9E66 D8
9E67 E8
9E68 E8
9E69 E8
9E70 D8
9E71 E8

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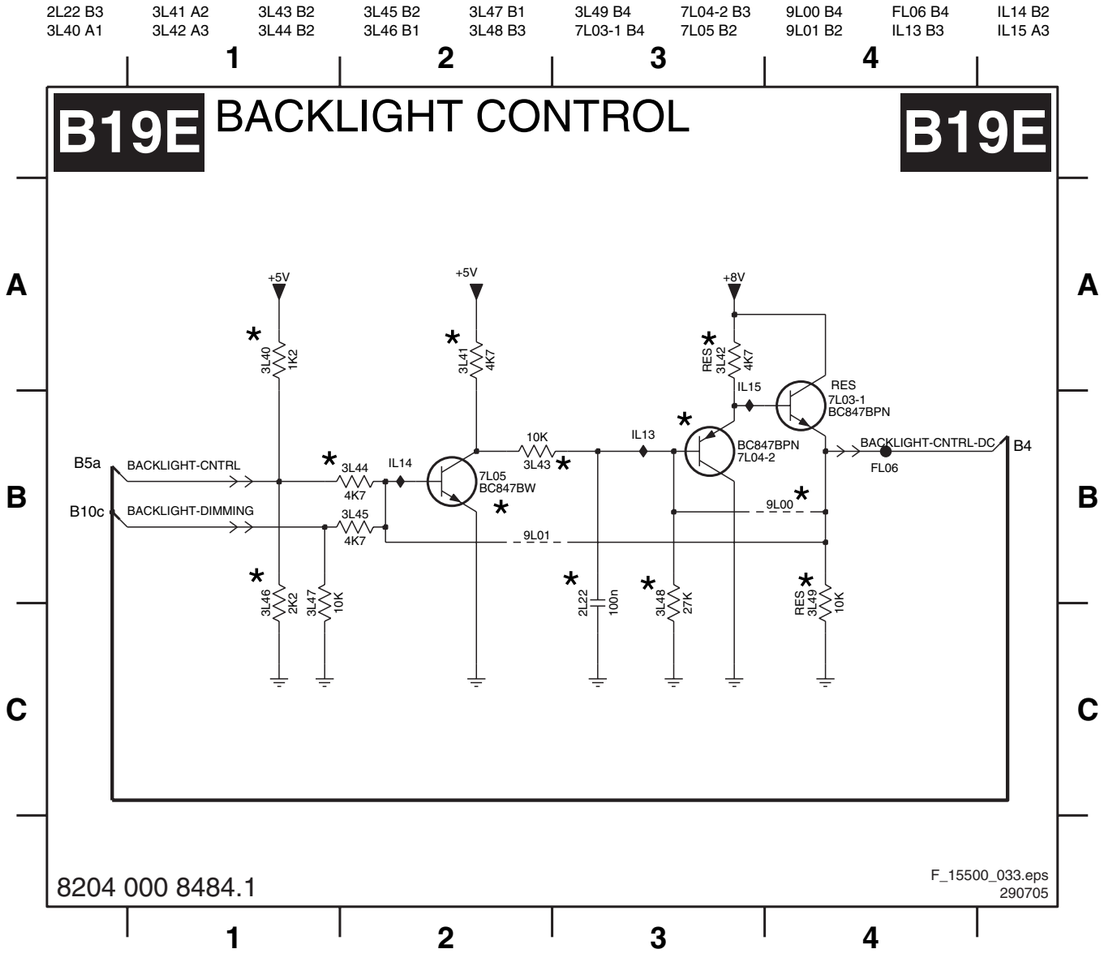
SSB: Backlight Control

2L22 B3
3L40 A1
3L41 A2
3L42 A3
3L43 B2
3L44 B2
3L45 B2
3L46 B1
3L47 B1
3L48 B3
3L49 B4
7L03-1 B4
7L04-2 B3
7L05 B2
9L00 B4
9L01 B2
FL06 B4
IL13 B3
IL14 B2
IL15 A3



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Personal Notes:

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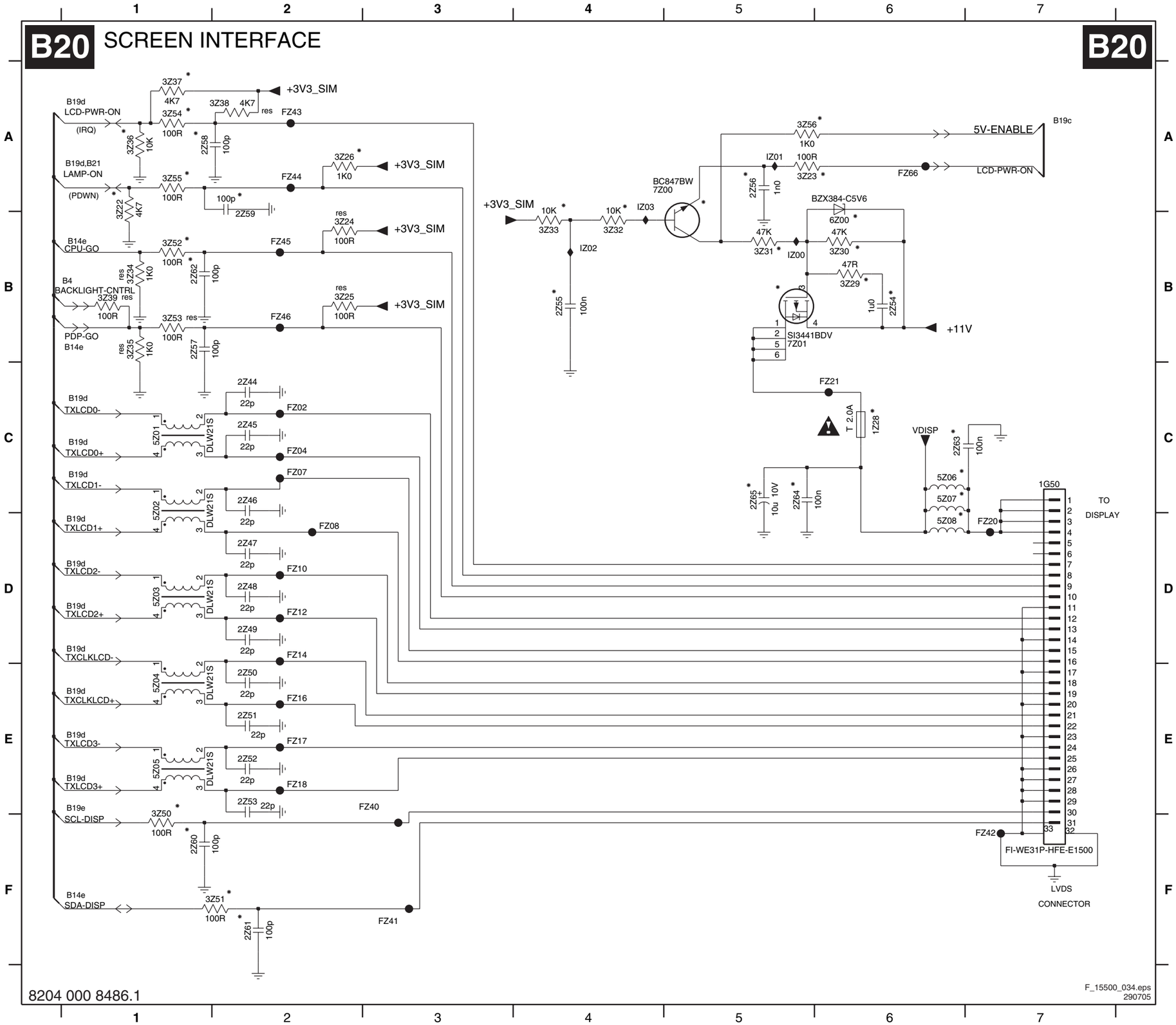
SSB: Screen Interface



1G50 C7	5Z05 E1
2Z44 C2	5Z06 C6
2Z45 C2	5Z07 C6
2Z46 C2	5Z08 D6
2Z47 D2	6Z00 B6
2Z48 D2	7Z00 A4
2Z49 D2	7Z01 B5
2Z50 E2	FZ02 C2
2Z51 E2	FZ04 C2
2Z52 E2	FZ07 C2
2Z53 E2	FZ08 D2
2Z54 B6	FZ10 D2
2Z55 B4	FZ12 D2
2Z56 A5	FZ14 D2
2Z57 B1	FZ16 E2
2Z58 A1	FZ17 E2
2Z59 A2	FZ18 E2
2Z60 F1	FZ20 D7
2Z61 F2	FZ21 C6
2Z62 B1	FZ40 E3
2Z63 C6	FZ41 F3
2Z64 C5	FZ42 F7
2Z65 C5	FZ43 A2
3Z22 A1	FZ44 A2
3Z23 A5	FZ45 B2
3Z24 B2	FZ46 B2
3Z25 B2	FZ66 A6
3Z26 A2	IZ00 B5
3Z28 C6	IZ01 A5
3Z29 B6	IZ02 B4
3Z30 B6	IZ03 A4
3Z31 B5	
3Z32 B4	
3Z33 B4	
3Z34 B1	
3Z35 B1	
3Z36 A1	
3Z37 A1	
3Z38 A2	
3Z39 B1	
3Z50 F1	
3Z51 F2	
3Z52 B1	
3Z53 B1	
3Z54 A1	
3Z55 A1	
3Z56 A5	
5Z01 C1	
5Z02 C1	
5Z03 D1	
5Z04 E1	

SSB: Connection

1M01 D10	1M36 B15	1Y04 A10	1Y11 E4	1Y18 G4	1Y27 E8	1Y35 B15	2Y03 C3	2Y11 A5	2Y18 F6	2Y26 B13	2Y33 D13	2Y42 D7	2Y51 A8	3Y04 H4	3Y11 F6	3Y18 B13	3Y25 A7	3Y36 A8	5Y02 C3	5Y14 F6	5Y21 C8	9Y00 D9	9Y07 D3	9Y17 B5	FY24 F3	FY32 D9	FY43 G7	FY50 A13	FY57 A9	FY64 C8	FY71 G9	FY78 F8	FY87 F13
1M02 E7	1M46 A1	1Y05 A10	1Y12 F4	1Y21 E8	1Y28 D10	1Y37 B15	2Y04 C3	2Y12 G4	2Y19 F6	2Y27 B13	2Y34 A3	2Y43 A6	2Y52 G3	3Y05 G3	3Y12 F8	3Y19 C13	3Y27 H13	3Y37 F2	5Y03 C3	5Y15 A3	5Y22 C7	9Y01 G4	9Y09 D2	FY00 A2	FY25 F3	FY37 E7	FY44 F7	FY51 B13	FY58 A8	FY65 A2	FY72 G9	FY79 F3	
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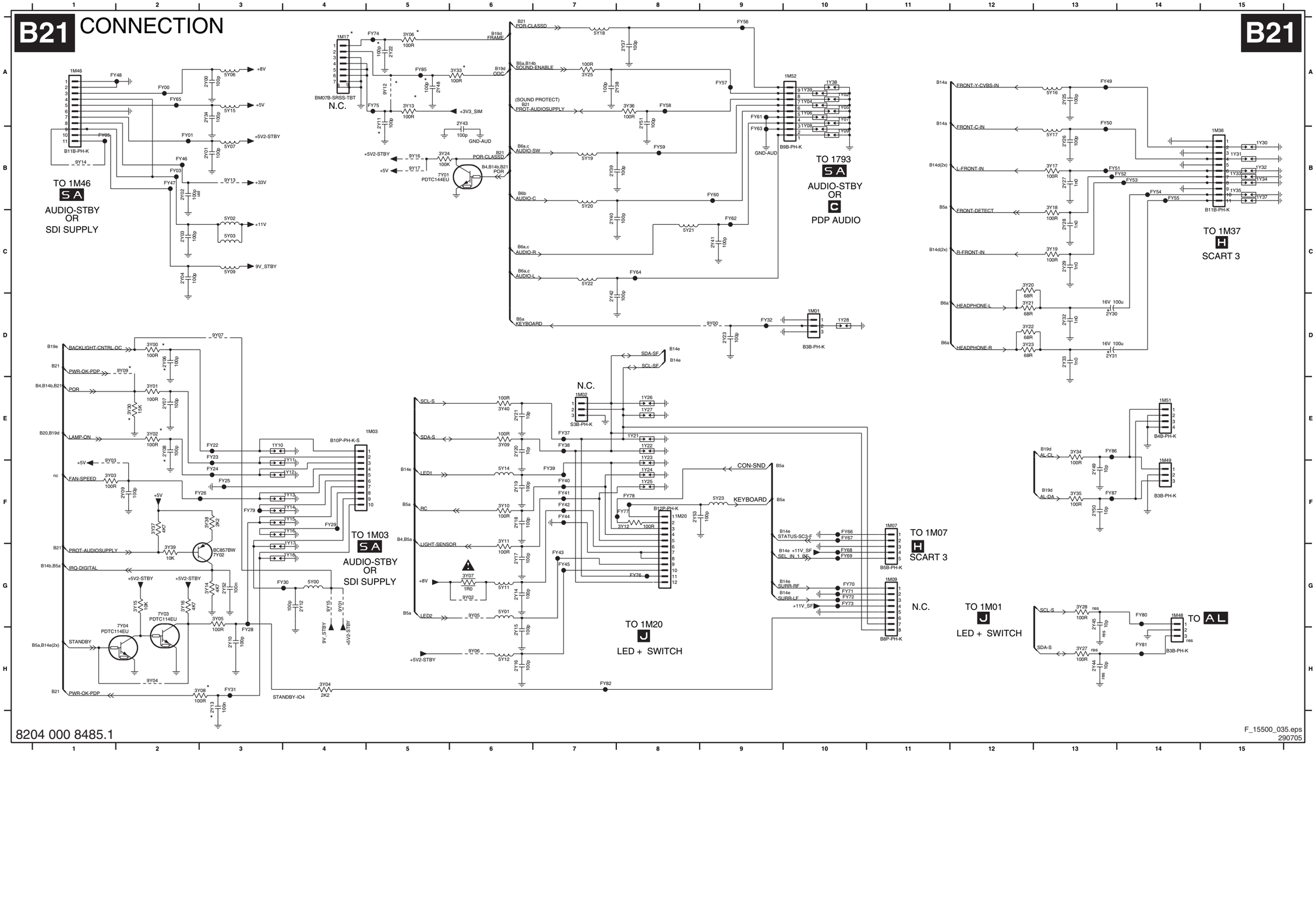

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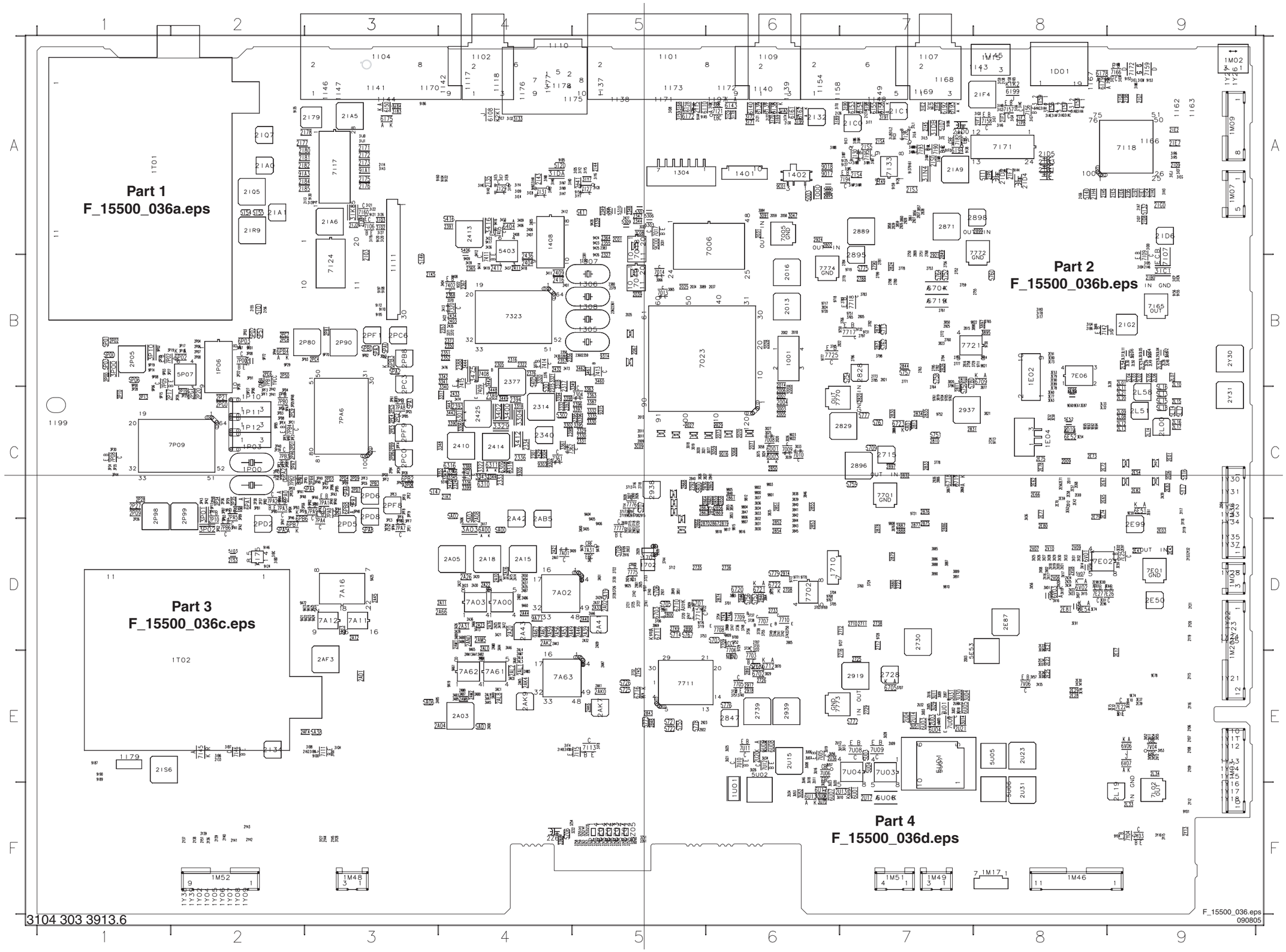
Layout SSB (Top Side Overview)



Layout SSB Mapping (Top Side)

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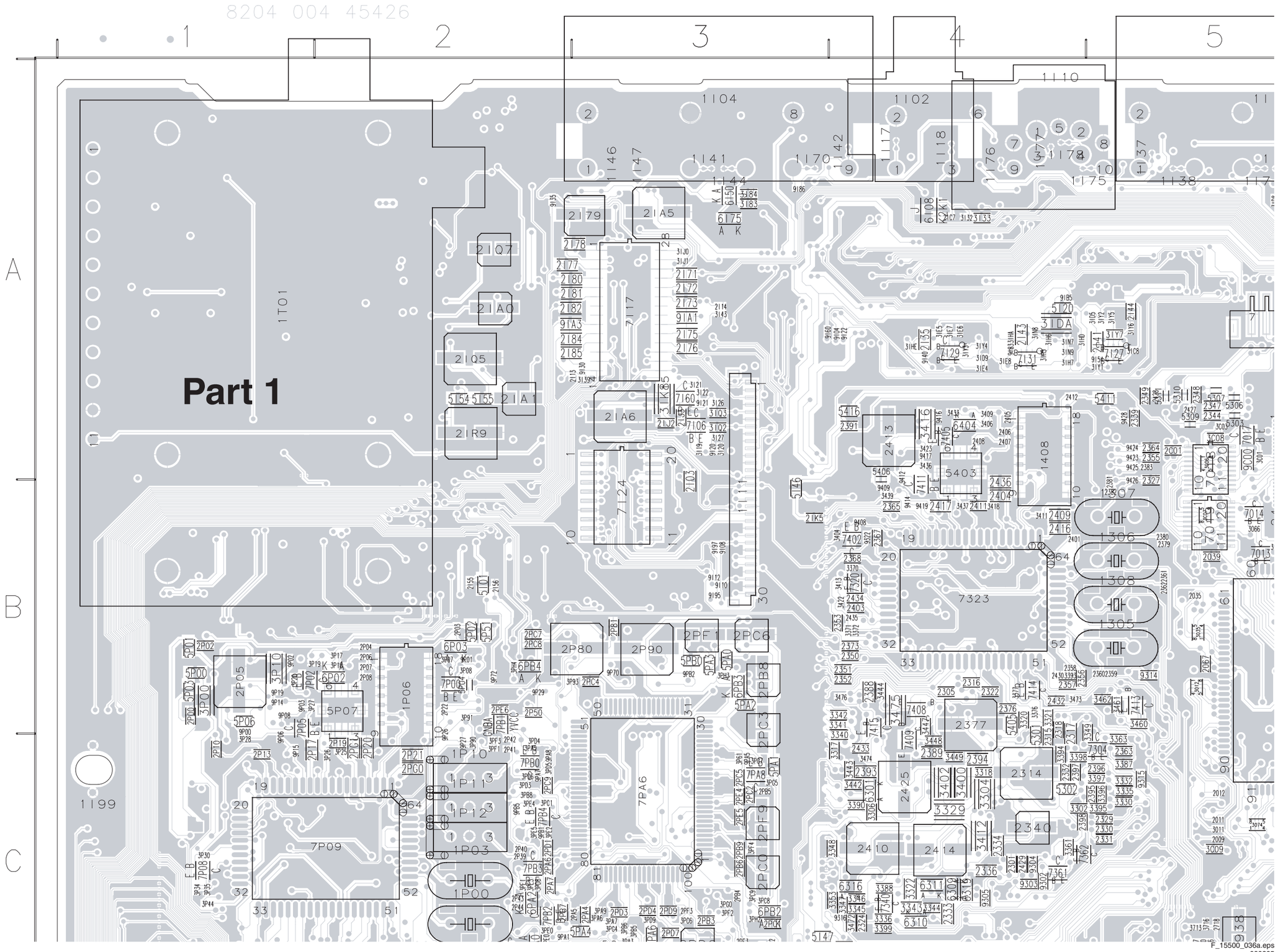
Layout SSB (Top Side Part 1)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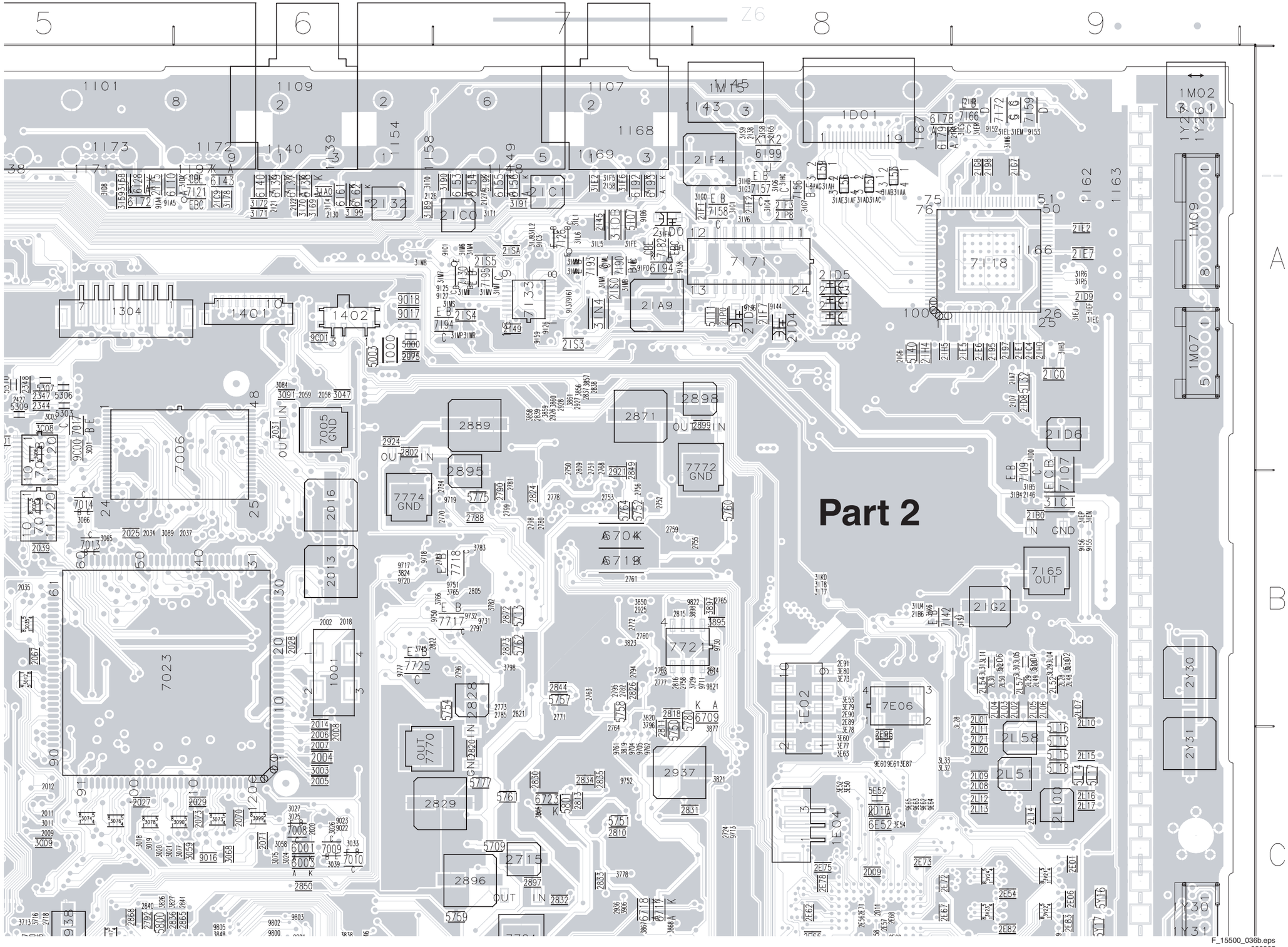
Layout SSB (Top Side Part 2)



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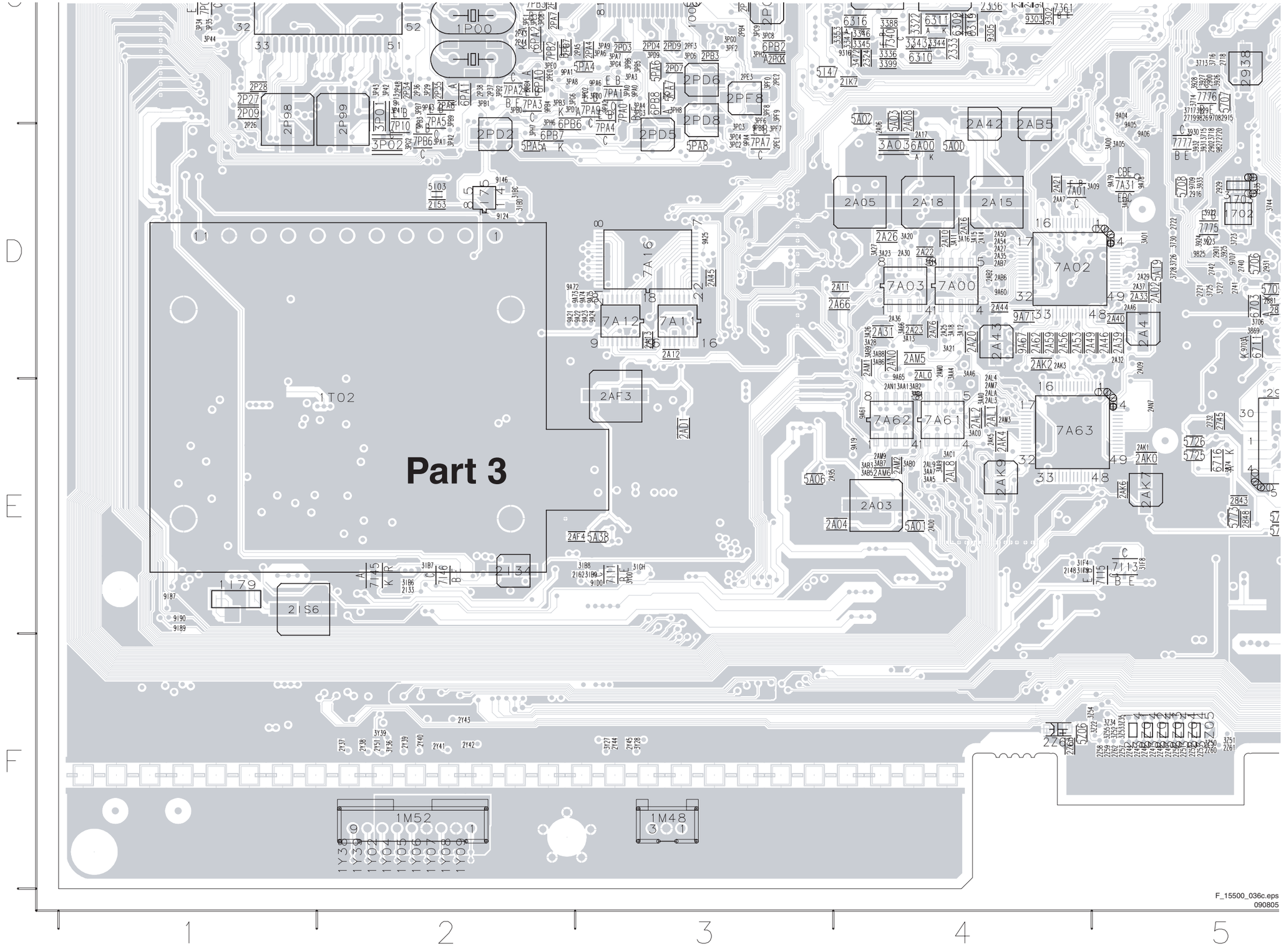
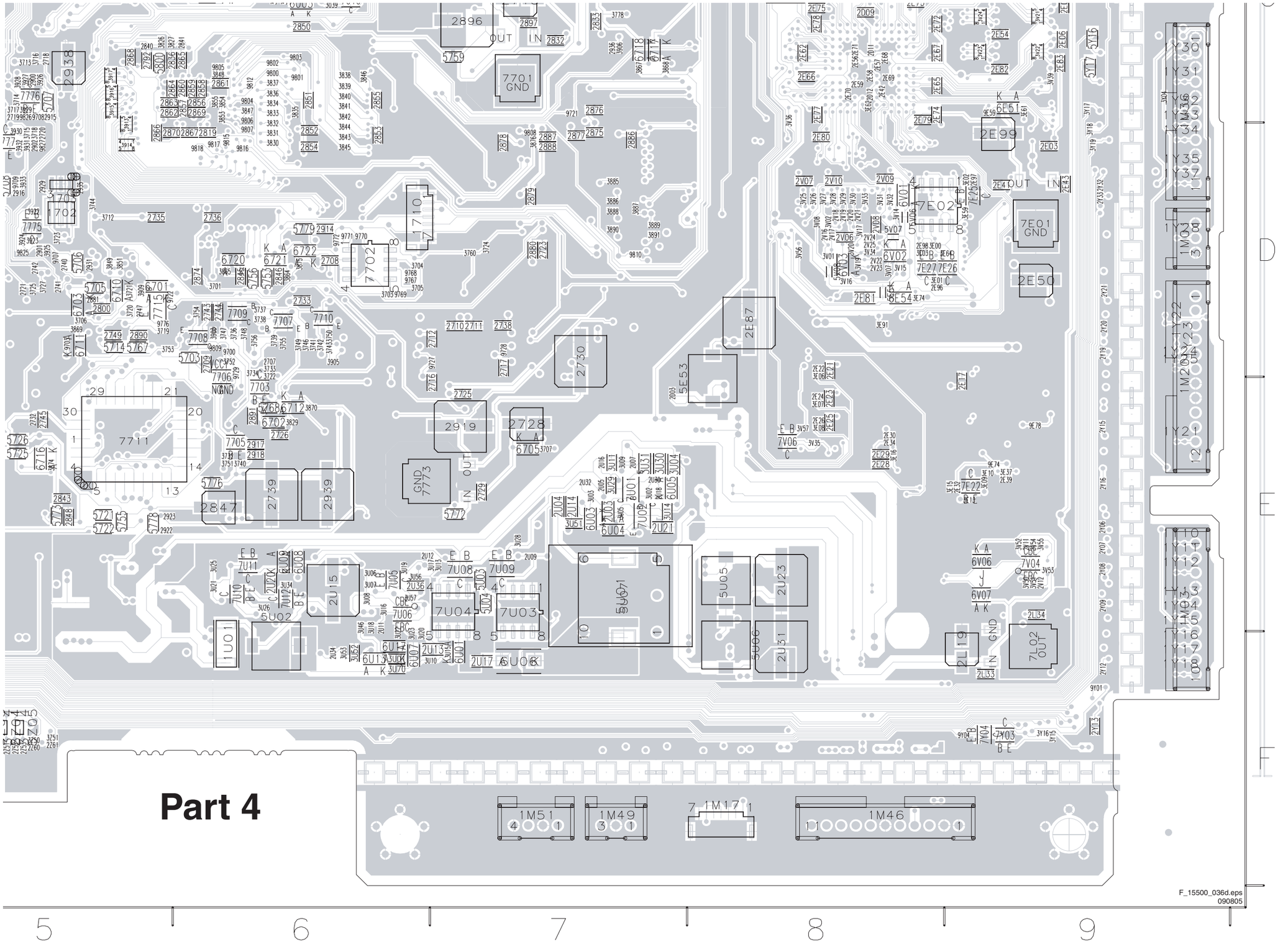
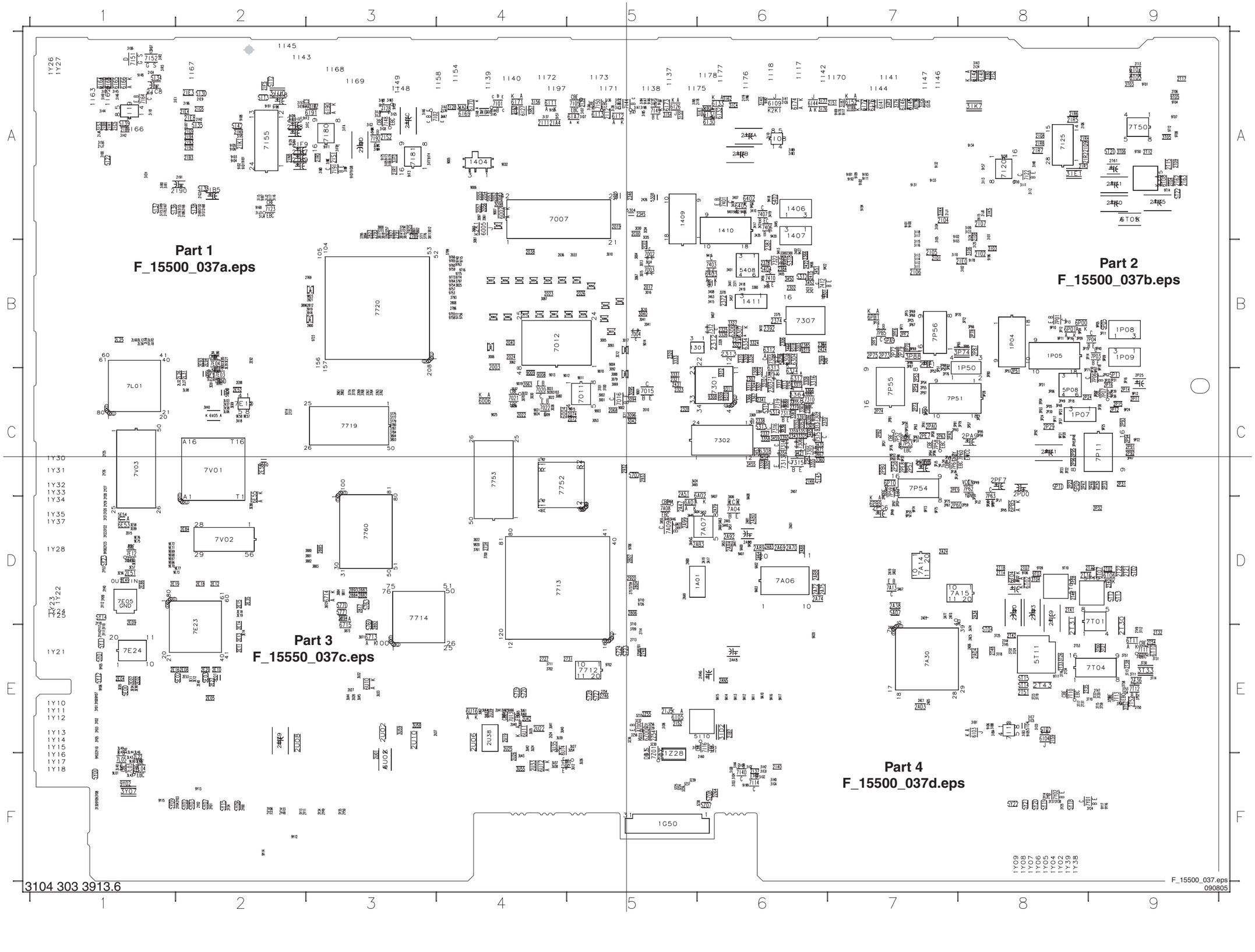
Layout SSB (Top Side Part 3)



Layout SSB (Top Side Part 4)



Layout SSB (Overview Bottom Side)



Layout SSB Mapping (Bottom Side)

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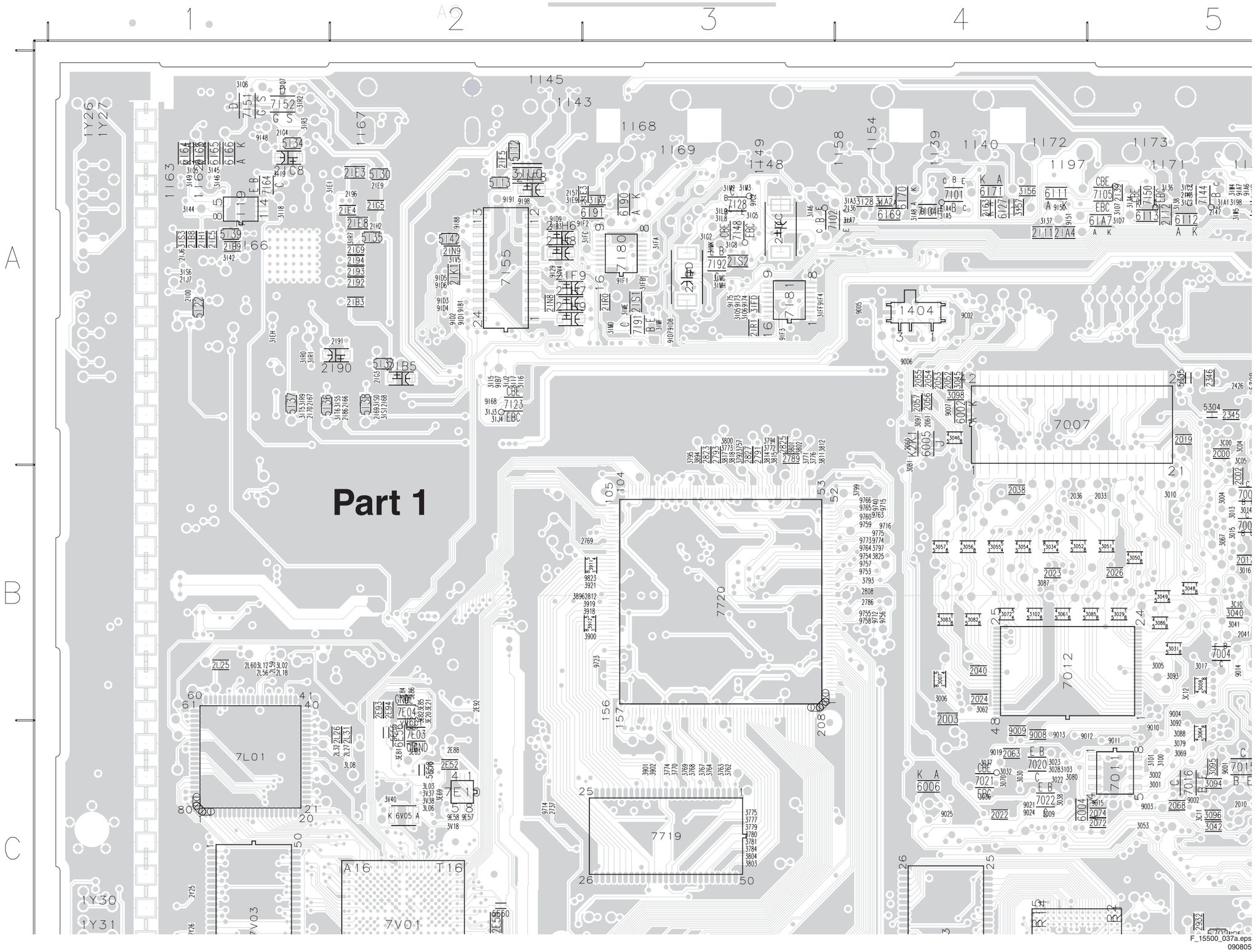

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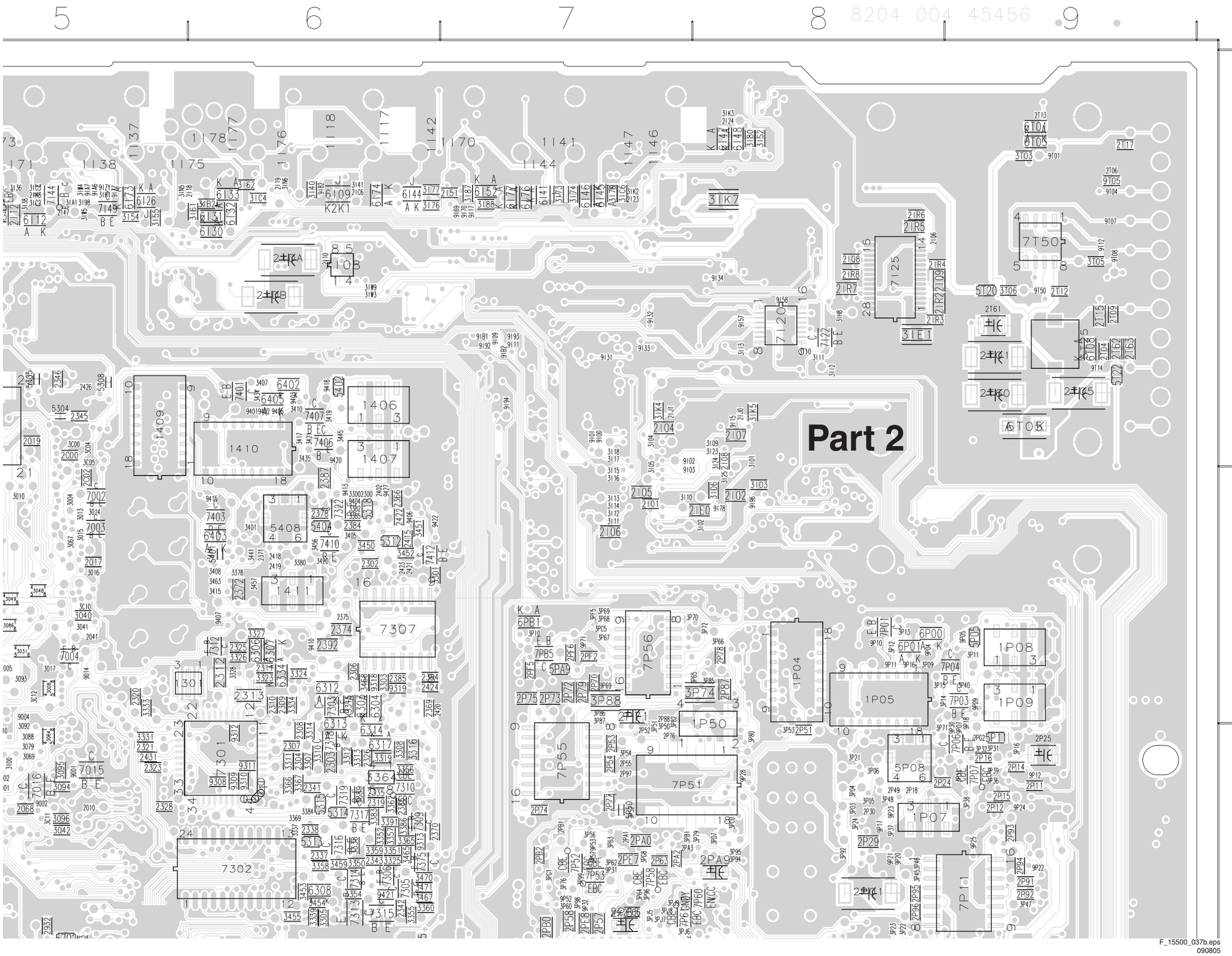

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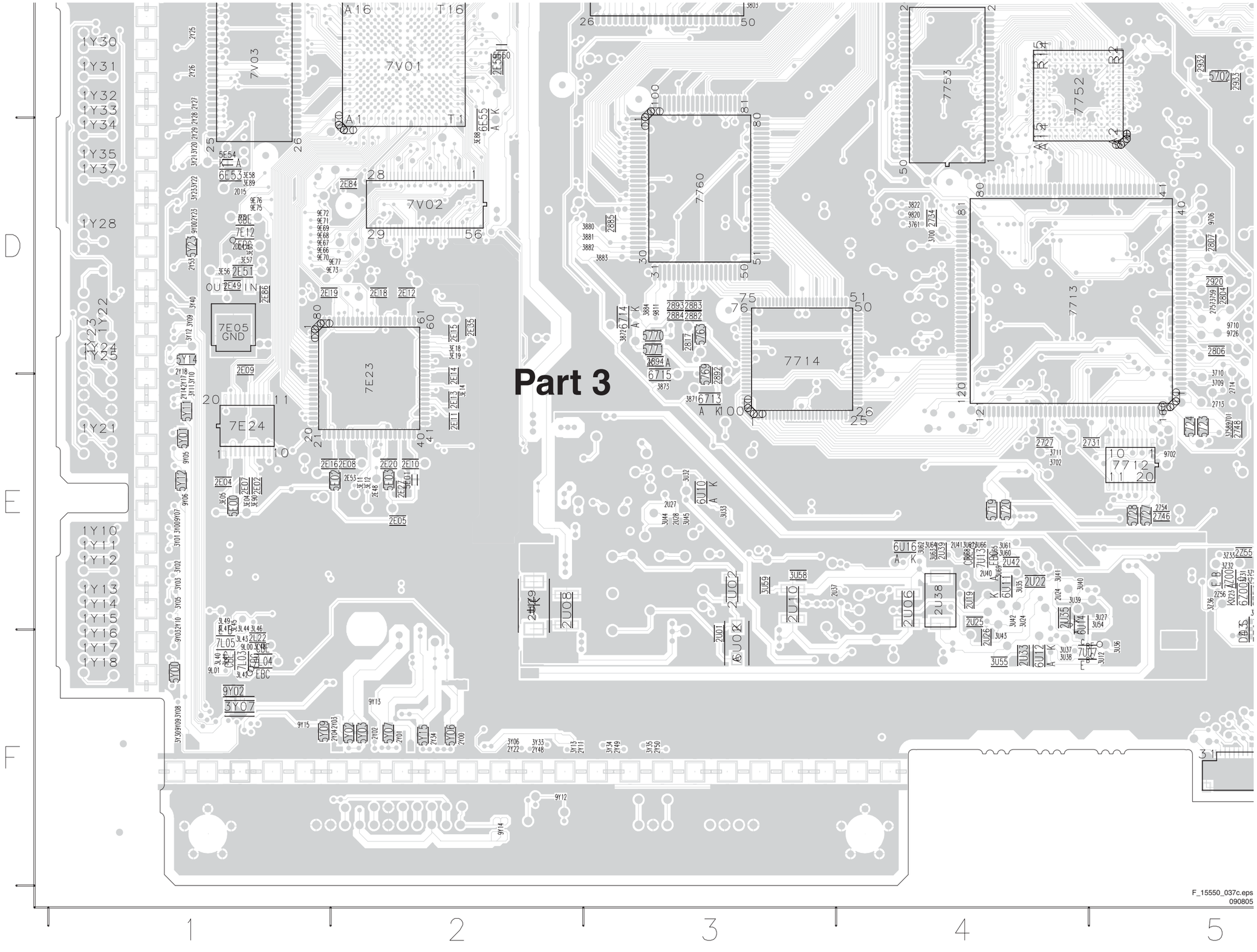

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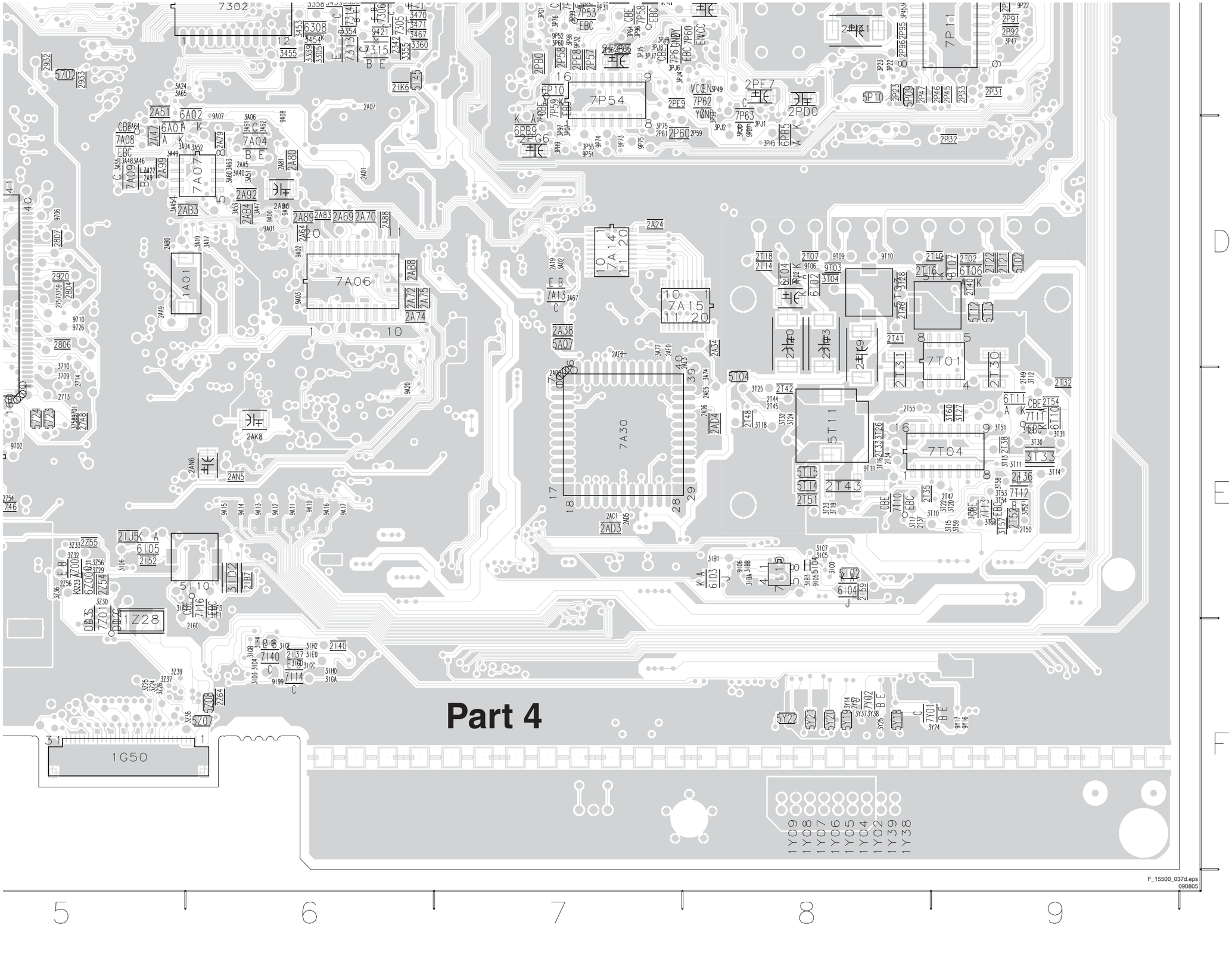

PDP Audio Amplifier

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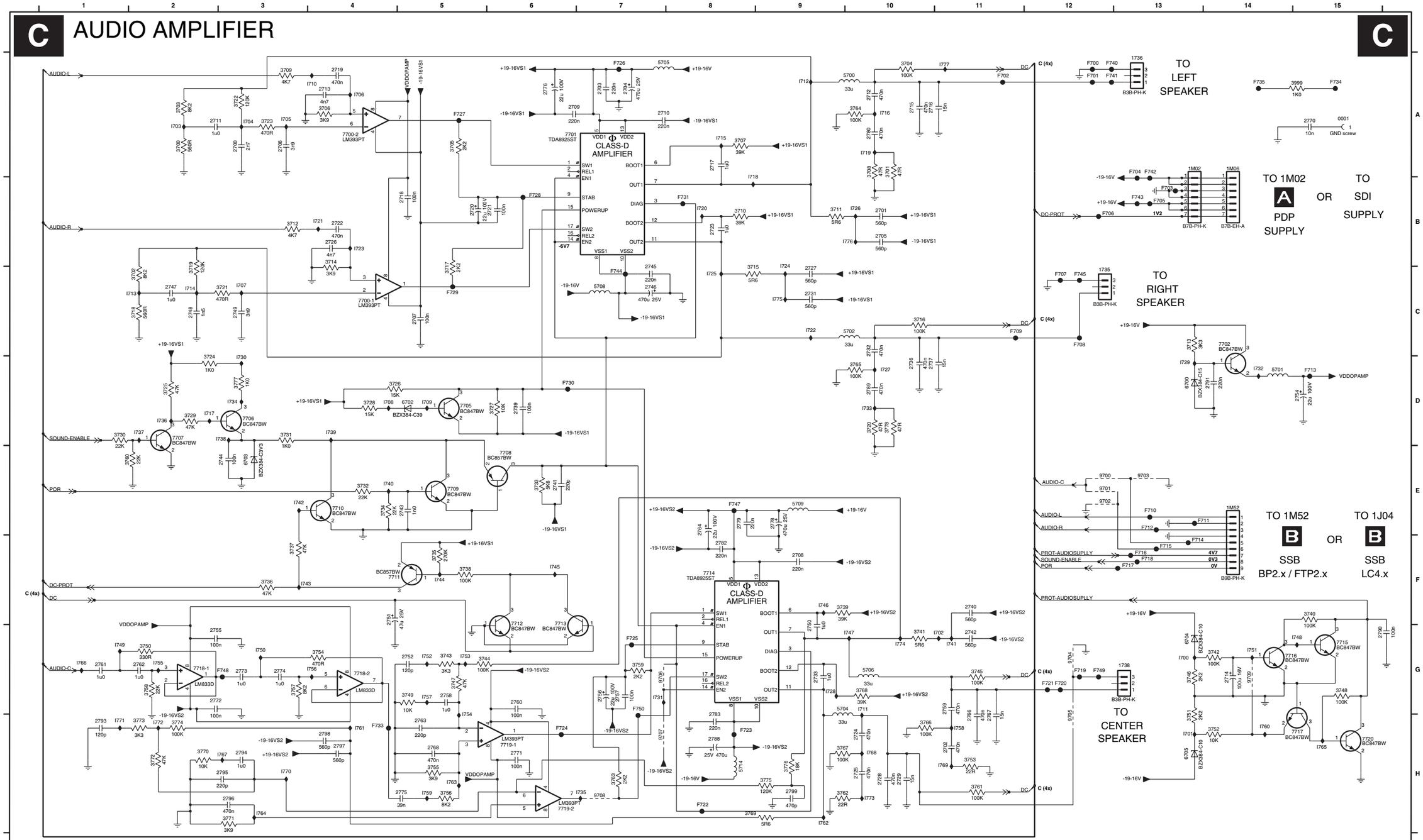

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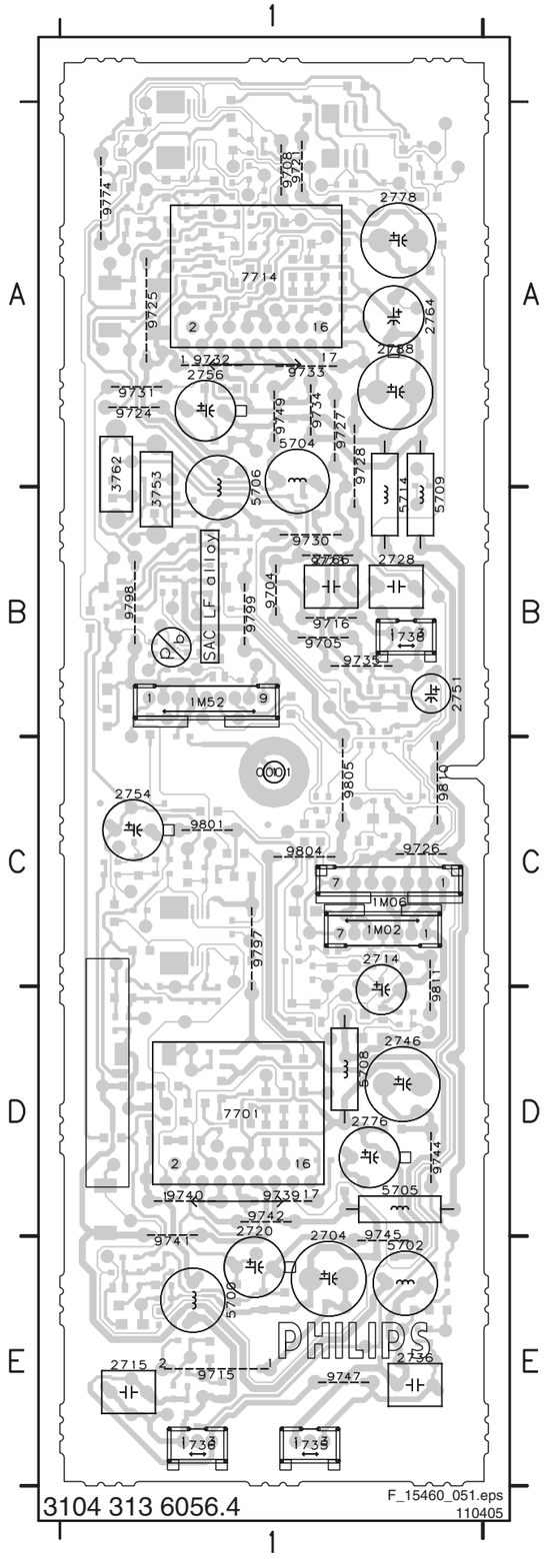

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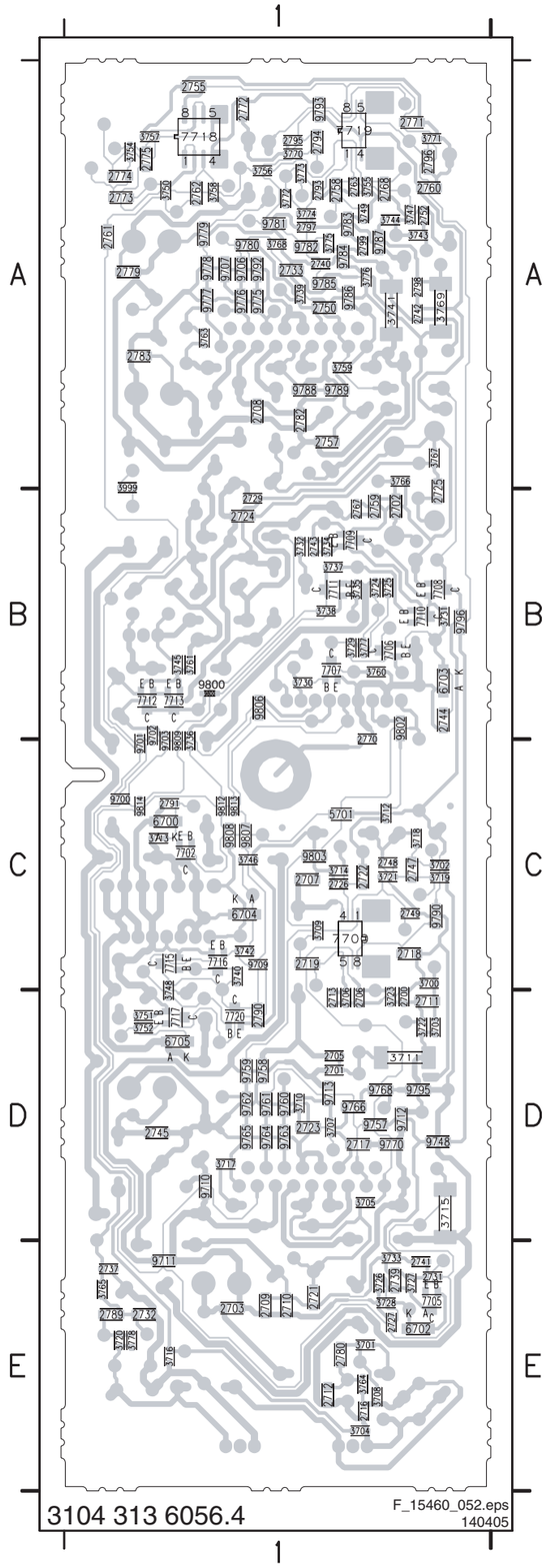
Layout PDP Audio Amplifier (Bottom Side)



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9813 C1
9814 C1

Side I/O Panel

D SIDE I/O

JAGUAR ONLY

TO 1H01 **B6A** VIPER

USB CONNECTOR

TO 1M36 **B21** SSB EMGT OR TO 1M36 **H** SCART 3 EMGT OR TO 1M36 **B10** SSB JAGUAR

SOUND L-HEADPHONE-OUT

SOUND R-HEADPHONE-OUT

HEADPHONE-OUT

B11B-PH-SM3-TBT

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1010	E1	F007	E2
1050	A7	F008	E2
1101	A3	F009	E2
1102	B3	F010	F8
1106	C3	F011	F9
1108	D3	F012	A6
1109	E3	F013	A7
1110	F3	F014	A6
1111	E3	F015	A7
1112	A7	F016	A6
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1M37	B8	F019	F2
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2004	C3	F021	C6
2005	C4	F022	C6
2006	D3	F023	C6
2007	D4	F024	E6
2008	F2	F025	E6
2009	F5	I001	C2
2010	E2	I002	C3
2011	E5	I003	D2
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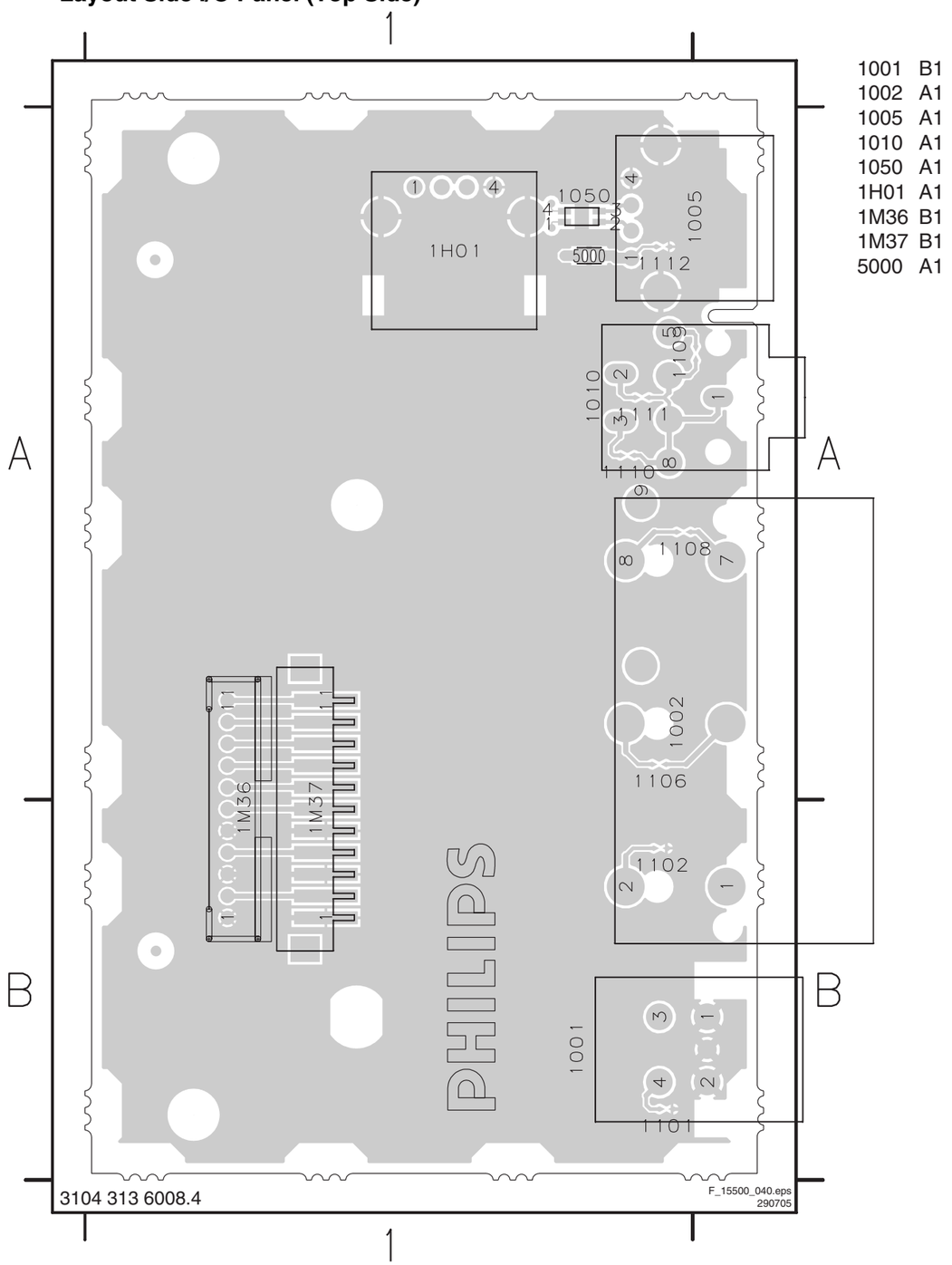

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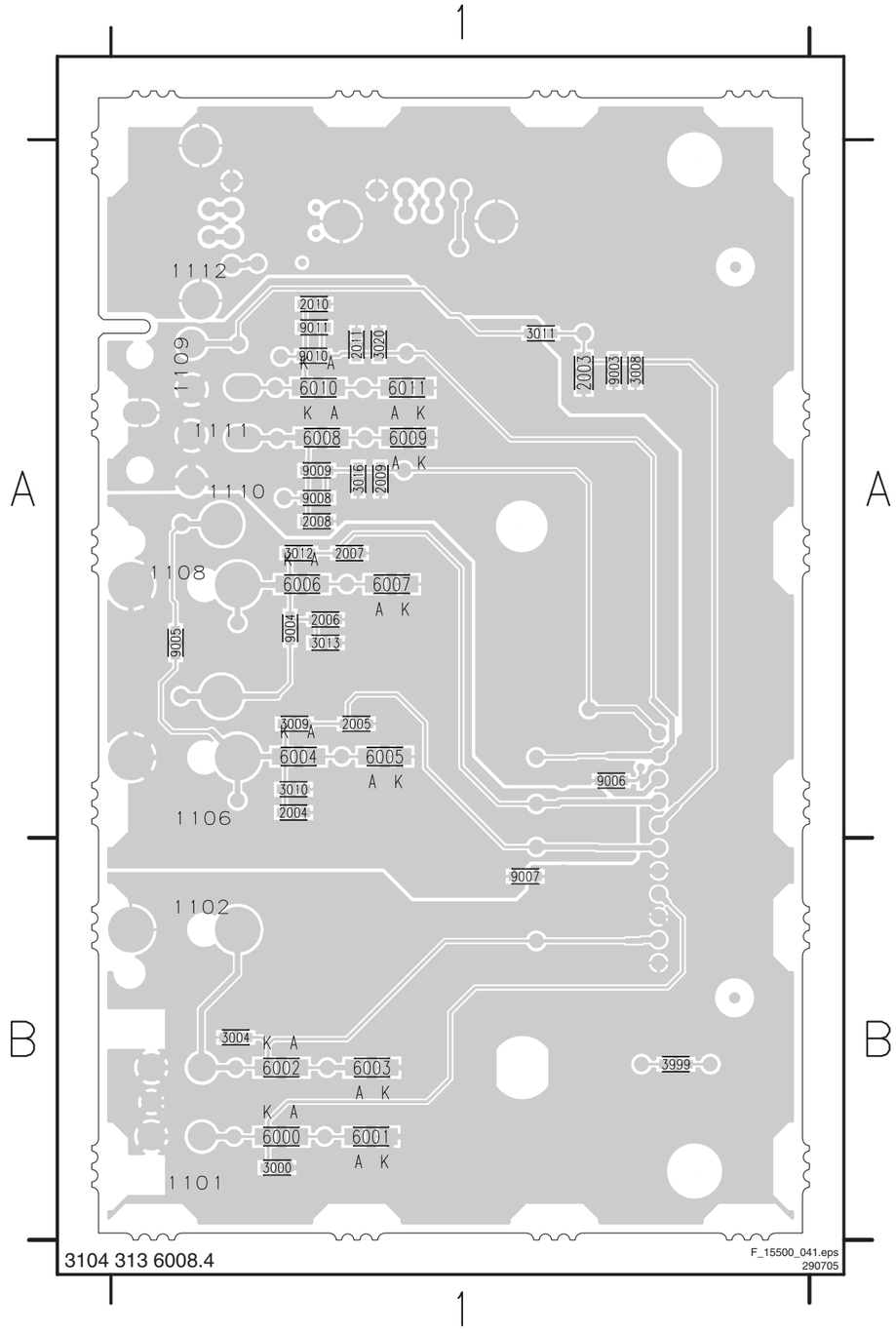

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3010 A1
3011 A1
3012 A1
3013 A1
3016 A1
3020 A1
3999 B1
6000 B1
6001 B1
6002 B1
6003 B1
6004 A1
6005 A1
6006 A1
6007 A1
6008 A1
6009 A1
6010 A1
6011 A1
9003 A1
9004 A1
9005 A1
9006 A1
9007 B1
9008 A1
9009 A1
9010 A1
9011 A1

Top Control Panel

E TOP CONTROL

BACKLIGHT-TC

3017 33R I110 6001 SML512BC2T
3018 33R I111 6002 SML512BC2T
3019 33R I112 6003 SML512BC2T
3020 33R I113 6004 SML512BC2T
3021 33R I114 6005 SML512BC2T
3022 33R I115 6006 SML512BC2T
3023 33R I116 6007 SML512BC2T
3024 33R I117 6008 SML512BC2T
3025 33R I118 6009 SML512BC2T
3026 33R I119 6010 SML512BC2T
3027 33R I120 6011 SML512BC2T
3028 33R I121 6012 SML512BC2T

KEYBOARD

F001 0345 1
F002 3
BACKLIGHT-TC F005 4
9001 5
9002 6

TO J LED + SWITCH

VOLUME - 1701 SKQNAB I105 3014 390R
VOLUME + 1702 SKQNAB I109 3013 200R
MENU 1705 SKQNAB I108 3011 2K0
CHANNEL - 1704 SKQNAB I106 3010 1K1
CHANNEL + 1703 SKQNAB I107 3008 620R

ON / OFF
9000
3 6
2 5
1 4
1710

F006 3999 2K2 F007

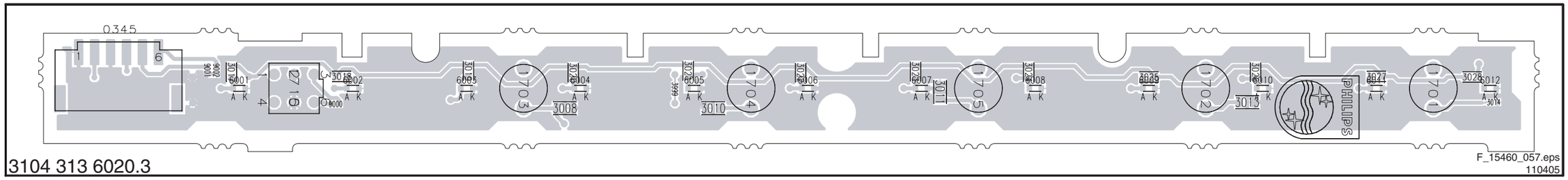
F_15460_056.eps
110405

3104 313 6020.3

0345 C5 I121 B5
1701 D1
1702 D1
1703 D2
1704 D2
1705 D2
1710 E4
3008 D3
3010 D2
3011 D2
3013 D1
3014 D1
3017 B1
3018 B1
3019 B2
3020 B2
3021 B2
3022 B3
3023 B3
3024 B4
3025 B4
3026 B4
3027 B5
3028 B5
3999 E7
6001 B1
6002 B1
6003 B2
6004 B2
6005 B2
6006 B3
6007 B3
6008 B4
6009 B4
6010 B4
6011 B5
6012 B5
9000 D4
9001 D5
9002 D5
F001 C5
F002 C5
F005 C5
F006 E7
F007 E7
I105 D1
I106 D2
I107 D2
I108 D2
I109 D1
I110 B1
I111 B1
I112 B2
I113 B2
I114 B2
I115 B3
I116 B3
I117 B4
I118 B4
I119 B4
I120 B5

Layout Top Control Panel (Top Side)

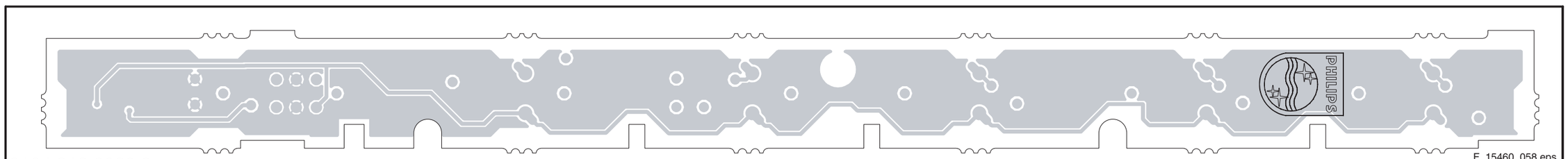
0345 -- 1702 -- 1704 -- 1710 -- 3010 -- 3013 -- 3017 -- 3019 -- 3021 -- 3023 -- 3025 -- 3027 -- 3999 -- 6002 -- 6004 -- 6006 -- 6008 -- 6010 -- 6012 -- 9001 --
1701 -- 1703 -- 1705 -- 3008 -- 3011 -- 3014 -- 3018 -- 3020 -- 3022 -- 3024 -- 3026 -- 3028 -- 6001 -- 6003 -- 6005 -- 6007 -- 6009 -- 6011 -- 9000 -- 9002 --



3104 313 6020.3

F_15460_057.eps
110405

Layout Top Control Panel (Bottom Side)

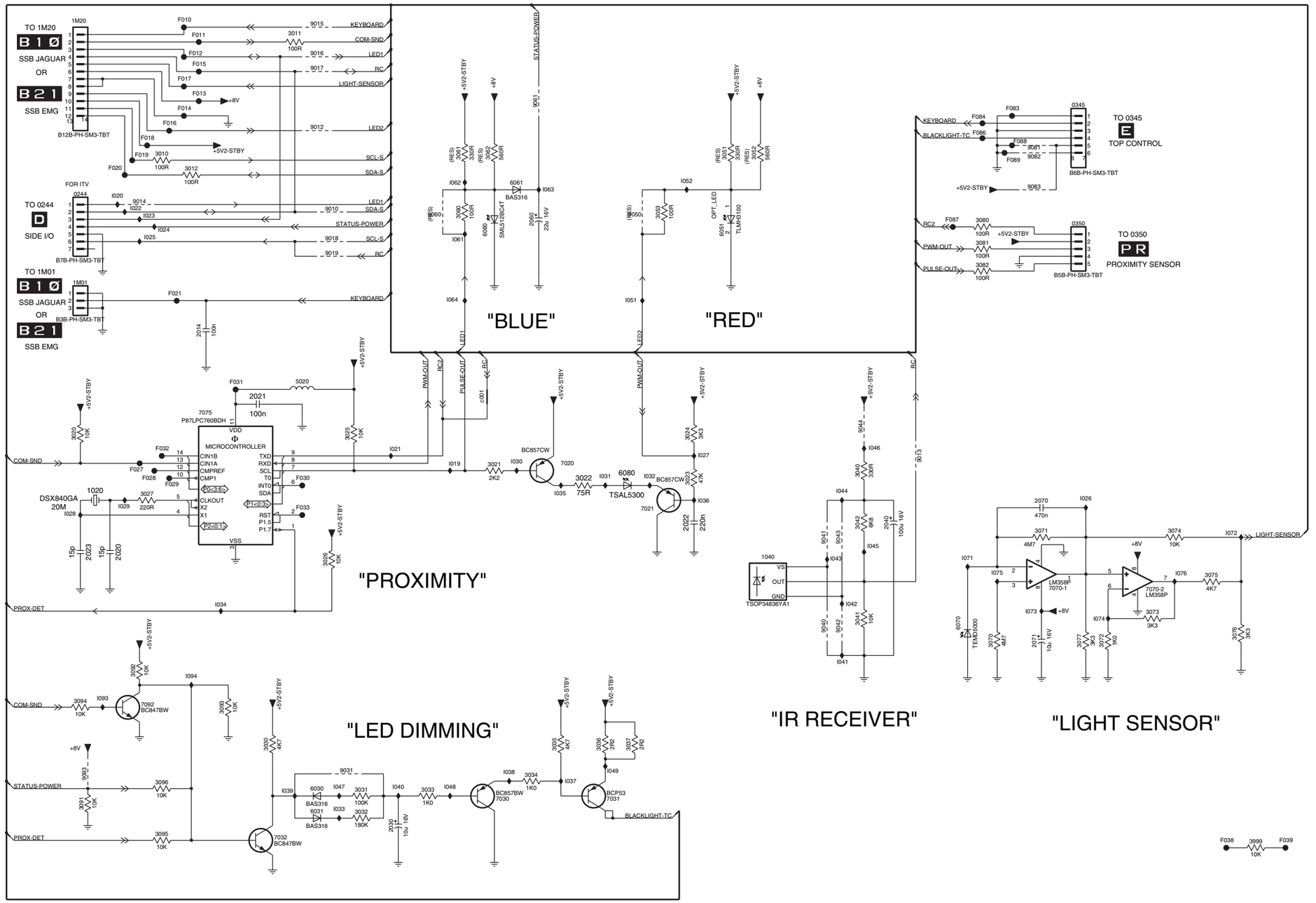


3104 313 6020.3

F_15460_058.eps
110405

LED and Switch Panel

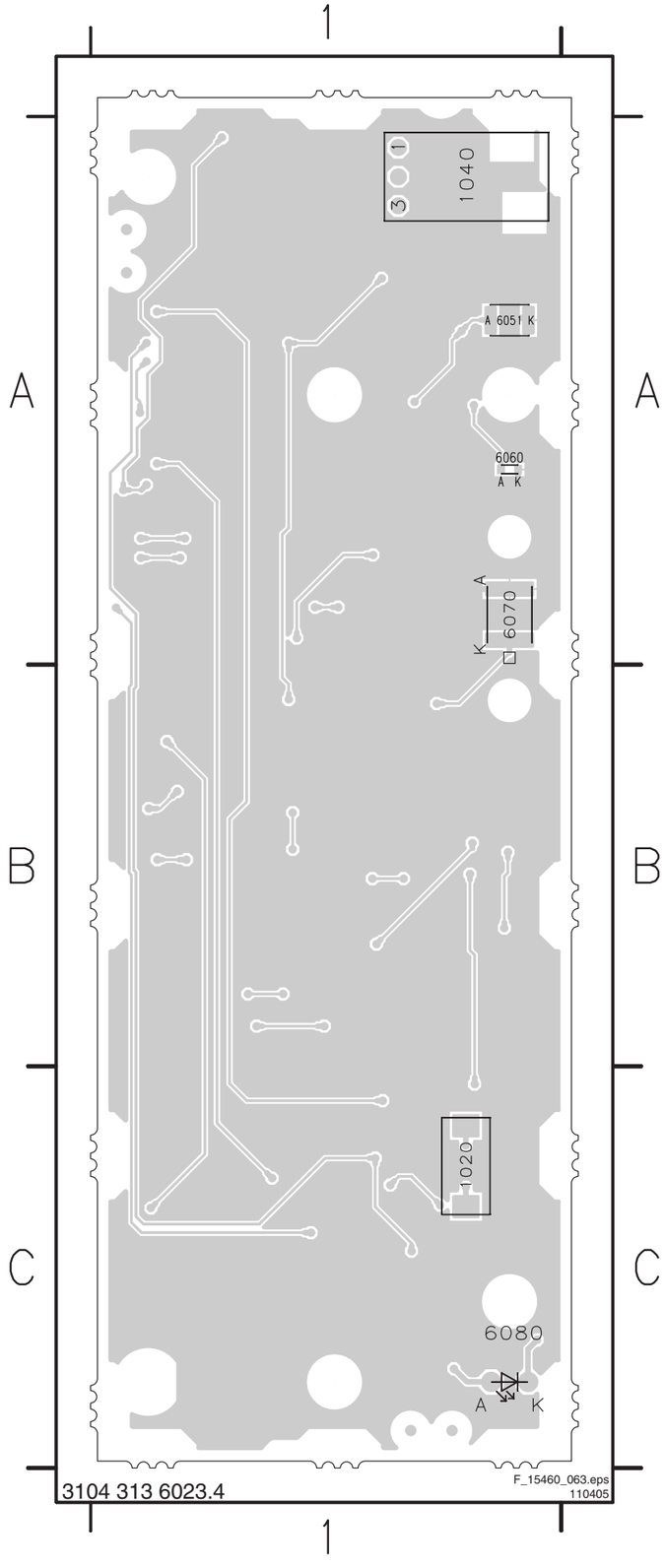
LED & SWITCH PANEL



F_15460_062.eps
110405

0244 C1 F018 B2
0345 B11 F019 B2
0350 C11 F020 B2
1020 E2 F021 D2
1040 F8 F027 E2
1M01 C1 F028 E2
1M20 A1 F029 E2
2014 D3 F030 E4
2020 F2 F031 D3
2021 E3 F032 E2
2022 F7 F033 F4
2023 F1 F038 I12
2030 I4 F039 I13
2040 F9 F083 B10
2060 C6 F084 B10
2070 F11 F086 B10
2071 G11 F087 C10
3010 B2 F088 B10
3011 A3 F089 B10
3012 B2 I019 E5
3020 E1 I020 C2
3021 E5 I021 E4
3022 E6 I022 C2
3023 E7 I023 C2
3024 E7 I024 C2
3025 E4 I025 C2
3026 F4 I026 F11
3027 E2 I027 E7
3030 H3 I028 F1
3031 H4 I029 F2
3032 I4 I030 E6
3033 H5 I031 E6
3034 H6 I032 E7
3035 H6 I033 I4
3036 H6 I034 G3
3037 H7 I035 E6
3040 E9 I036 F7
3041 G9 I037 H6
3042 F9 I038 H6
3051 B8 I039 H3
3052 B8 I040 H4
3053 C7 I041 G9
3060 C5 I042 G9
3061 B5 I043 F9
3062 B5 I044 E9
3070 G10 I045 F9
3071 F11 I046 E9
3072 G11 I047 H4
3073 G12 I048 H5
3074 F12 I049 H7
3075 F12 I051 D7
3076 G13 I052 B7
3077 G11 I061 C5
3080 C10 I062 B5
3081 C10 I063 C6
3082 C10 I064 D5
3091 H1 I071 F10
3092 G2 I072 F13
3093 H3 I073 G11
3094 G1 I074 G11
3095 I2 I075 F10
3096 H2 I076 F12
3999 I13 I093 G2
5020 D4 I094 G2
6030 H4 c001 E5
6031 I4
6051 C8
6060 C5
6061 B6
6070 G10
6080 E7
7020 E6
7021 F7
7030 H5
7031 H6
7032 I3
7070-1 F11
7070-2 F12
7075 E3
7092 H2
9010 C4
9012 B4
9013 E9
9014 C2
9015 A4
9016 A4
9017 A4
9018 C4
9019 C4
9031 H4
9040 G9
9041 F9
9042 G9
9043 F9
9044 E9
9050 C7
9060 C5
9061 B6
9081 B11
9082 B11
9083 C11
9093 H1
F010 A2
F011 A3
F012 A3
F013 B3
F014 B2
F015 A3
F016 B2
F017 A2

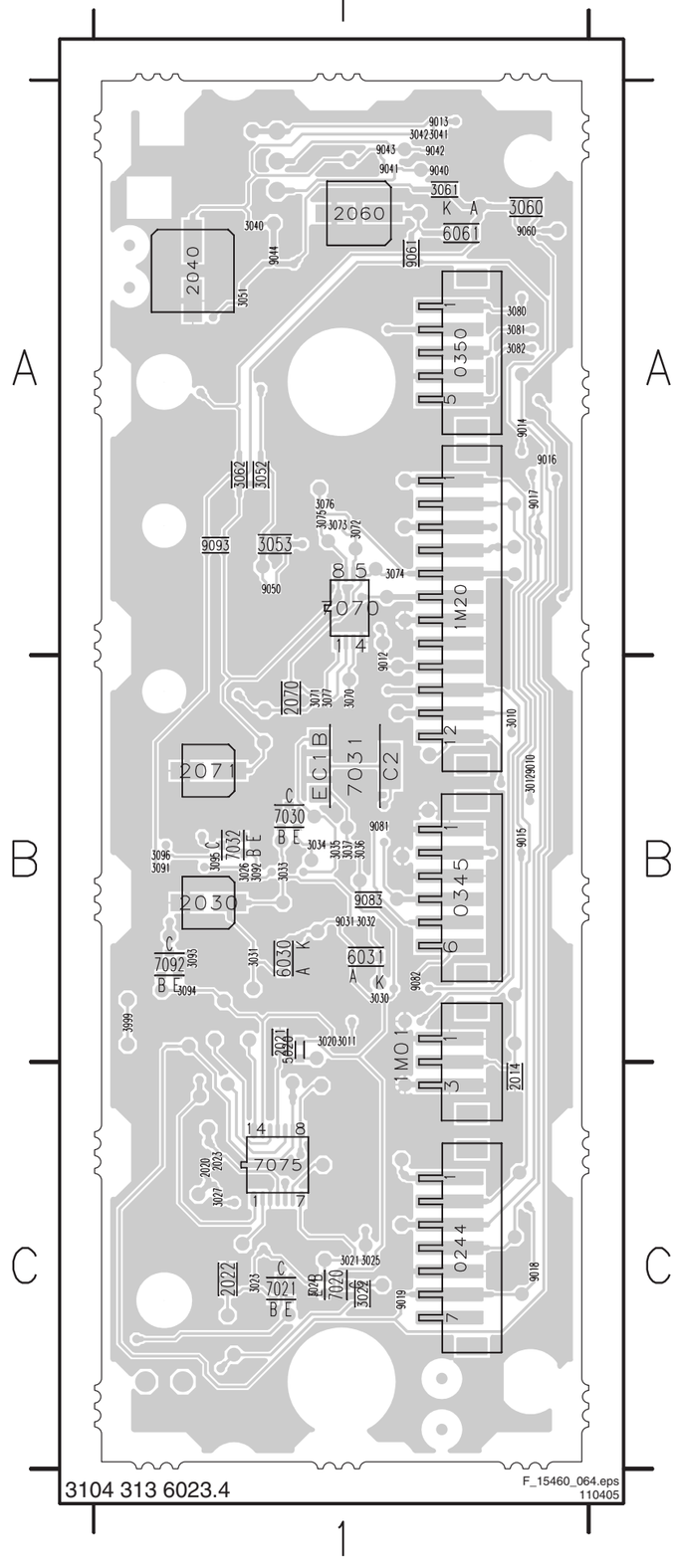
Layout LED and Switch Panel (Top Side)



1020 C1
1040 A1
6051 A1
6060 A1
6070 A1
6080 C1

3104 313 6023.4

Layout LED and Switch Panel (Bottom Side)



0244 C1
0345 B1
0350 A1
1M01 B1
1M20 A1
2014 C1
2020 C1
2021 B1
2022 C1
2023 C1
2030 B1
2040 A1
2060 A1
2070 B1
2071 B1
3010 B1
3011 B1
3012 B1
3020 B1
3021 C1
3022 C1
3023 C1
3024 C1
3025 C1
3026 B1
3027 C1
3030 B1
3031 B1
3032 B1
3033 B1
3034 B1
3035 B1
3036 B1
3037 B1
3040 A1
3041 A1
3042 A1
3051 A1
3052 A1
3053 A1
3060 A1
3061 A1
3062 A1
3070 B1
3071 B1
3072 A1
3073 A1
3074 A1
3075 A1
3076 A1
3077 B1
3080 A1
3081 A1
3082 A1
3091 B1
3092 B1
3093 B1
3094 B1
3095 B1
3096 B1
3999 B1
5020 B1
6030 B1
6031 B1
6061 A1
7020 C1
7021 C1
7030 B1
7031 B1
7032 B1
7070 A1
7075 C1
7092 B1
9010 B1
9012 B1
9013 A1
9014 A1
9015 B1
9016 A1
9017 A1
9018 C1
9019 C1
9031 B1
9040 A1
9041 A1
9042 A1
9043 A1
9044 A1
9050 A1
9060 A1
9061 A1
9081 B1
9082 B1
9083 B1
9093 A1

3104 313 6023.4

8. Alignments

Index of this chapter:

8.1 General Alignment Conditions
8.2 Hardware Alignments
8.3 Software Alignments
8.4 Option Settings

8.1 General Alignment Conditions

8.1.1 Start Conditions

Perform all electrical adjustments under the following conditions:

- Power supply voltage (depends on region):
  - **AP-NTSC:** 120 V_{AC} or 230 V_{AC} / 50 Hz (± 10%).
  - **AP-PAL-multi**: 120 - 230 V_{AC} / 50 Hz (± 10%).
  - **EU**: 230 V_{AC} / 50 Hz (± 10%).
  - **LATAM-NTSC**: 120 - 230 V_{AC} / 50 Hz (± 10%).
  - **US**: 120 V_{AC} / 60 Hz (± 10%).
- Connect the set to the mains via an isolation transformer with low internal resistance.
- Allow the set to warm up for approximately 10 to 15 minutes.
- Measure voltages and waveforms in relation to chassis ground (with the exception of the voltages on the primary side of the power supply).
  Caution: never use heatsinks as ground.
- Test probe: Ri > 10 Mohm, Ci < 20 pF.
- Use an isolated trimmer/screwdriver to perform alignments.

8.1.2 Initial Settings

Perform all electrical adjustments with the following initial settings (via the "Active Control" button on the RC):

1. To avoid the working of the light sensor, set "Active Control" to "Off".
2. Set "Smart Picture" to "Eco/Natural".
3. Set "Active Display" to "Off"

8.1.3 Alignment Sequence

- First, set the correct options:
  - In SAM, select SERVICE OPTIONS -> OPT. NO,
  - Fill in the option settings according to the set sticker (see also paragraph "Option Settings"),
  - Select STORE OPTIONS and push "OK" on the remote control,
  - After storing, the set must be restarted!
- Warming up (> 10 minutes).
- White point alignment.

8.2 Hardware Alignments

No hardware alignments are necessary.

8.3 Software Alignments

Put the set in SAM mode (see the "Service Modes, Error Codes and Fault Finding" section). The SAM menu will now appear on the screen. Select ALIGNMENTS and go to one of the sub menus. The alignments are explained below.

Notes:

- All changes must be stored manually.
- If an empty EAROM (permanent memory) is detected, all settings are set to pre-programmed default values.

8.3.1 General

For the next alignments, supply the following test signals via a video generator to the RF input:

- **EU/AP-PAL** models: a PAL B/G TV-signal with a signal strength of at least 1 mV and a frequency of 475.25 MHz
- **US/AP-NTSC** models: an NTSC M/N TV-signal with a signal strength of at least 1 mV and a frequency of 61.25 MHz (channel 3).
- **LATAM** models: an NTSC M or PAL M TV-signal with a signal strength of at least 1 mV and a frequency of 61.25 MHz (channel 3).

Luma Gain
Fixed setting of "1".

Delta Luma Gain For Aux (Only When A 2nd Tuner Is Present)
Fixed setting of "0 dB".

IF AFC
Alignment procedure:

1. During the IF AFC-parameter adjustment, one can see OSD feedback on the screen.
2. The OSD feedback can give four kinds of messages:
3. The first item ("IN/OUT") informs you whether you are in or out of the AFC-window.
4. The second item ("HIGH/LOW") informs you whether the AFC-frequency is too high or too low.

Table 8-1 AFC

AFC-window	AFC-frequency vs. reference
Out	High
In	High
[In]	[Low]
Out	Low

1. Adjust the IF AFC parameter until the **first** value is within the AFC window (= IN).
2. Next, adjust the IF AFC parameter until the **second** value is LOW.

IF LPRIME AFC (only for EU sets)
Same procedure as described above, but with SECAM L/L' signal source.

Tuner AGC
Measure the DC voltage on pin 1 of the (main) Tuner. You can adjust this voltage by adjusting the TUNER AGC item in the SAM menu. Alignment is correct when the DC voltage is just below 3.5 V.

IF AFC Tuner 2 (only when a 2nd Tuner is present)
Use the same procedure as described above (under IF AFC) with the set switched to the DW source.

IF LPRIME AFC Tuner 2 (only when a 2nd Tuner is present)
Use the same procedure as described above (under IF LPRIME AFC) with the set switched to the DW source.

Tuner AGC Tuner 2 (only when a 2nd Tuner is present)
Use the same procedure as described above (under TUNER AGC) with the set switched to the DW source. Measure on pin 1 of the DW Tuner.

Blend Intensity
Use this alignment when you replace the microcontroller, NVM, or the EBILD. It aligns the level of transparency of the menu-picture blended into the main-picture. Fixed setting of "16".

8.3.2 2FH ADC Alignment

Only necessary to align, when the A/D converter or NVM is replaced. Use the default values as mentioned in the table.

Table 8-2 "2fH ADC alignment"

Menu item	Value
Red Gain RGB	106
Blue Gain RGB	112
Green Gain RGB	133
Red Offset RGB	40
Blue Offset RGB	41
Green Offset RGB	43
Red Gain YPbPr *	115
Blue Gain YPbPr *	118
Green Gain YPbPr *	102
Red Offset YPbPr *	59
Blue Offset YPbPr *	56
Green Offset YPbPr *	35
* = only for sets with YPbPr input	

8.3.3 White Point

- Set ACTIVE CONTROL to "Off".
- In the TV -> PICTURE user menu set:
  - DYNAMIC CONTRAST to "Off".
  - COLOUR ENHANCEMENT to "Off".
  - DNR to "Off".
  - DIGITAL OPTIONS to "Pixel Plus 2".
  - CONTRAST to "100".
- Go to the SAM and select ALIGNMENTS -> WHITE POINT.

Method 1 (with colour analyser):
- Use a 100% white screen as input signal and set the following values:
  - COLOR TEMPERATURE: "Tint to be aligned".
  - WHITE POINT RED: "127".
  - WHITE POINT GREEN: "127".
  - WHITE POINT BLUE: "127".
  - RED BL OFFSET: "7"
  - GREEN BL OFFSET: "7".
- Measure with a calibrated (phosphor- independent) colour analyser (e.g. Minolta CA-210) in the centre of the screen. This measurement needs to be done in a dark environment.
- **Cut off alignment:** Adjust, by means of changing the value of one or both OFFSET's, to the correct x,y coordinates for the tint "NORMAL" (see table "White D alignment values"). Tolerance: dx,dy: ± 0.004.
- **White point alignment:** Adjust by means of decreasing the value of one or two white points, the correct x,y coordinates (see table "White D alignment values"). Tolerance: dx,dy: ± 0.004.
- Repeat this step for the other Colour Temperatures that need to be aligned.
- When finished press "Store" to store the aligned values to the NVM.

Table 8-3 White D alignment values

Colour Temp.	Cool	Normal	Warm
X	0.275	0.286	0.315
Y	0.291	0.301	0.335

Method 2 (without colour analyser):
If you do not have a colour analyser, you can use the default values. This is the next best solution. The default values are average values coming from production (statistics).
1. Select a COLOUR TEMPERATURE (e.g. COOL, NORMAL, or WARM).
2. Set the RED, GREEN and BLUE default values according to the values in the "Tint settings" table.
3. When finished press "Store" to store the aligned values to the NVM.

Table 8-4 Tint settings

	Cool		Normal		Warm	
	42"	50"	42"	50"	42"	50"
R	127	127	127	127	127	127
G	99	116	93	108	74	95
B	111	124	95	107	56	72

8.3.4 Lum. Del.

With this Luminance Delay alignment, you place the luminance information exactly on the chrominance information (brightness is pushed onto the colour). Use a colour bar / grey scale pattern as test signal.
- **LUM. DELAY PAL BG:** Apply a PAL BG colour bar / grey scale pattern as a test signal. Adjust this parameter until the transients of the colour part and black and white part of the test pattern are at the same position. Default value is "**7**".
- **LUM. DELAY PAL I:** Apply a PAL I colour bar/grey scale pattern as a test signal. Adjust this parameter until the transients of the colour part and black and white part of the test pattern are at the same position. Default value is "**9**".
- **LUM. DELAY SECAM:** Apply a SECAM colour bar/grey scale pattern as a test signal. Adjust this parameter until the transients of the colour part and black and white part of the test pattern are at the same position. Default value is "**9**".
- **LUM. DELAY BYPASS:** apply a NTSC colour bar/grey scale pattern as a test signal. Adjust this value until the transients of the colour and black and white part of the test area are at the same position. Default value is "**6**".

8.4 Option Settings

8.4.1 Introduction

The microprocessor communicates with a large number of I^2C ICs in the set. To ensure good communication and to make digital diagnosis possible, the microprocessor has to know which ICs to address. The presence / absence of these specific ICs (or functions) is made known by the option codes.

Notes:
- After changing the option(s), save them with the STORE command.
- The new option setting is only active after the TV is switched "off" and "on" again with the Mains switch (the EAROM is then read again).

8.4.2 Dealer Options

Table 8-5 Dealer options

Menu name	Subjects	Options	Description
Personal Options	Picture Mute	Yes	Picture (blue) mute active in case no picture detected
		No	Noise in case of no picture detected
	Virgin Mode	Yes	TV starts up (once) with language selection menu after mains switch "on" for the first time (virgin mode)
		No	TV does not starts up (once) with language selection menu after mains switch "on" for the first time (virgin mode)
	Auto Store Mode (only valid for EU and AP-PAL sets)	None	Autostore mode disabled (not in installation menu)
		PDC-VPS	Autostore mode via ATS (PDC/VPS) enabled
		TXT page	Autostore mode via ACI enabled
		PDC-VPS-TXT	Autostore mode via ACI or ATS enabled
	TXT Preference (only valid for EU and AP-PAL sets)	TOP	Preference to TOP Teletext
		FLOF	Preference to FLOF Teletext
	DVD door lock (only valid for sets with integrated DVD)	Yes	To disable the DVD tray opening function
		No	To enable the DVD tray opening function
	AmbiLight Demo	Yes	AmbiLight demo via "MENU" button enabled
		No	AmbiLight demo via "MENU" button disabled

8.4.3 Service Options

Select the sub menu's to set the initialisation codes (options) of the set via text menus.

Table 8-6 Service option overview

Menu-item	Subjects	Options	Description
Dual Screen	PIP/Dual Screen	Yes / No	Feature present / not present
	Text/EPG	Yes / No	Feature present / not present
	DS/PIP Tuner	Yes / No	Feature present / not present (only selectable if PIP/Dual Screen option is "on")
Teletext	NexTView type	None	Feature not present
		Textguide only	Feature present, but only as text guide
		Nextview 2c3	Feature present, for countries that support NexTView
Display	Screen (the used display code is also printed on the option code sticker inside the set)	Value "000"	42 inch PDP SDI (v3)
		Value "001"	50 inch PDP SDI (v3)
		Value "002"	42 inch PDP FHP
		Value "003"	30 inch LCD LPL
		Value "004"	37 inch LCD LPL
		Value "005"	42 inch LCD LPL
		Value "006"	32 inch LCD Sharp
		Value "007"	42 inch PDP SDI VGA (v3)
		Value "008"	37 inch PDP FHP
		Value "011"	32 inch PDP LPL
		Value "025"	42 inch PDP SDI HD (v4)
		Value "026"	42 inch PDP FHP HD A2
		Value "027"	50 inch PDP SDI HD (v4)
Video Repro	Feature box type	1050i/1250i	HD input
		Eagle 1B	"Eagle version 1B" present (Pixel Plus 1)
		Eagle 1C	"Eagle version 1C" present (Pixel Plus 2)
	Lightsensor	Yes / No	Feature present / not present
	3D Comb filter	Yes / No	Only selectable when Columbus is present
	Improved Noise Reduction	Yes / No	Only selectable when Columbus is present
	PixelPlus Version	1	Standard PP: only selectable with Eagle 1C
		2	Improved PP: only selectable with Eagle 1C
	720p	Yes / No	Enable for high resolution displays
Source Selection	EXT3 1Fh (2003)	Yes / No	Not selectable

Menu-item	Subjects	Options	Description
Audio Repro	Acoustic System	FTV Top	Cabinet design (xxPF9986 and xxPF9996 with NXT). See styling 499 in Product Survey.
		Soft Wrap	Cabinet design (xxPF9956 and xxPF9966 standard). See styling 496 in Product Survey.
		Wrap	Cabinet design (xxPF9956 and xxPF9966 standard). See styling 500 in Product Survey.
		FTV2.3	Cabinet design (for future)
	AVL	Yes / No	Enable / disable Automatic Volume Limiter
Miscellaneous	Home Cinema	Yes / No	Model with / without Home Cinema Link (EU only)
	Integrated RC	Yes / No	Control pheripheral equipment via TV IR receiver (EU only)
	Tuner type	UV1316 / TEDE9	Model with Philips tuner / Alps tuner
	P50 DVD menu line	Yes / No	Enable / disable DVD control via user menu with TV RC (EU only)
	Hotel Mode	Yes / No	Enable / disable Hotel Mode
Option no.	Group 1		Group 1 option code overview (see set sticker)
	Group 2		Group 2 option code overview (see set sticker)
	Store Options	<OK>	Store options when changed

8.4.4 Opt. No. (Option Numbers)

Select this sub menu to set all options at once (expressed in two long strings of numbers).
An option number (or "option byte") represents a number of different options. When you change these numbers directly, you can set all options very quickly. All options are controlled via eight option numbers.
When the EAROM is replaced, all options will require resetting. To be certain that the factory settings are reproduced exactly, you must set both option number lines. You can find the correct option numbers on a sticker inside the TV set.

Example: The options sticker gives the following option numbers:

- 62708 08224 00336 00011
- 00022 06416 00128 00066

The first line (group 1) indicates hardware options 1 to 4, the second line (group 2) indicates software options 5 to 8.
Every 5-digit number represents 16 bits (so the maximum value will be 65536 if all options are set).
When all the correct options are set, the sum of the decimal values of each Option Byte (OB) will give the option number.
See next table for the option overview.

Table 8-7 Option overview

Byte	Bit (dec. value)	Subject	Options	Settings (in decimal values)	Remarks
1	0 (1)	Video Repro	Feature Box Type	3= Eagle 1B, 4= Eagle 1C, 5= 1050i/1250i	
	1 (2)				
	2 (4)				
	3 (8)	Personal	Ambi Light Demo	0= Off, 8= On	
	4 (16)	Video Repro	Auto Scavem	0= No, 16= Yes	Only selectable for CRT sets.
	5 (32)		Improv. Noise Reduction	0= No, 32= Yes	Fixed to "Yes" in case Columbus is present
	6 (64)		Light Sensor	0= No, 64= Yes	
	7 (128)	n.a.	n.a.		
	8 (256)	Video Repro	Digital Option	0 (No)= Dig. Natural Motion (for PP1) or PixelPlus (for PP2), 256 (Yes)= PixelPlus (for PP1) or PixelPlus2 (for PP2)	This depends on the "Pixel Plus Version" option (see also Byte 1 - bit 14), and gives the info that is visible in the user menu.
	9 (512)		n.a.		
	10 (1024)	Source Selection	1152i	0= Off, 1024= On	
	11 (2048)	Video Repro	n.a.		
	12 (4096)		Signalling Bits	0= No, 4096= Yes	Fixed to: "Yes" in EU and AP-P, "No" for other versions.
	13 (8192)		3D Comb Filter	0= No (2D Comb), 8192= Yes (3D Comb)	
	14 (16384)		PP (Pixel Plus) Version	0= “1”, 16384= “2”	Only selectable when "Feature Box" option is "Eagle 1C". See also Byte 1- bit 8 "Digital Option".
	15 (32768)		720p	0= No, 32768= Yes	
2	0 (1)	Audio Repro	n.a.		
	1 (2)		Dolby Pro Logic	0= No, 2= Yes	
	2 (4)		Virtual Rear Speakers	0= No, 4= Yes	Fixed to: "Yes" for sets with Dolby Pro Logic.
	3 (8)		Cordless Rear Speakers	0= No, 8= Yes	Fixed to: "No" for all versions, except for EU.
	4 (16)		Dolby Digital	0= No, 16= Yes	When Dolby Digital is "Yes", the AVL (Byte 8 - bit 6) option must be "No".
	5 (32)		Virtual Dolby	0= No, 32= Yes	Fixed to: "No" in case the "Dolby Pro Logic" option (Byte 2 - Bit 1) unequals "none".
	6 (64)		Sub woofer	0= No Sub woofer present, 64= Sub woofer present.	
	7 (128)				
	8 (256)	Chassis/Region	Chassis	0= EM6, 256= EM5, 512 = EM3	FTx2.x= EM6
	9 (512)				
	10 (1024)				
	11 (2048)				
	12 (4096)	Teletext	n.a.		
	13 (8192)		Flash RAM	0= No, 8192= Yes	NexTView type 2C3 and 2 need a Flash RAM.
	14 (16384)		NexTView type	0= None, 16384= Textguide only, 32768= NexTView 2C3, 49152= NexTView 2	Only available for EU.
	15 (32768)				
3	0 (1)	n.a.	n.a.		
	1 (2)	n.a.	n.a.		
	2 (4)	n.a.	n.a.		
	3 (8)	n.a.	n.a.		
	4 (16)	Dual Screen	PIP/Dual Screen	0= No, 16= Yes	
	5 (32)		n.a.		
	6 (64)		TXT/EPG Dual Screen	0= No, 64= Yes.	Fixed to: "Off" for AP-N, US, and LA versions.
	7 (128)		n.a.		
	8 (256)	Display	CRT type (Aspect Ratio)	0= 4:3, 256= 16:9	
	9 (512)		Picture Rotation	0= No, 512= Yes	Only selectable for CRT sets.
	10 (1024)		Monitor	0= No, 1024= Yes	Reserved for Flat TV monitor.
	11 (2048)	Miscellaneous	Integrated Radio	0= No, 2048= Yes	
	12 (4096)		Stand Alone	0= No, 4096= Yes	Reserved for Flat TV monitor.
	13 (8192)		Integrated DVD	0= No, 8192= Yes	
	14 (16384)		Home Cinema	0= No, 16384= Yes	Fixed to: "No" in all versions except for EU.
	15 (32768)		Integrated RC	0= No, 32768= Yes	Fixed to: "No" in all versions except for EU.
4	0 (1)	Dual Screen	DS/PIP (Aux) Tuner	0= Aux Tuner not present, 1= Aux Tuner present	Only selectable in the EU version, provided the "PIP/Dual Screen" option is "Yes".
	1 (2)		DS/PIP (Aux) Tuner Type	0= UV1316, 2= TEDE9	
	2 (4)	Miscellaneous	38.0 (or China) IF	0= No, 4= Yes	Fixed to: "No" in all versions except for AP-P.
	3 (8)		Tuner Type	0= UV1316, 8= TEDE9	
	4 (16)	Teletext	n.a.		
	5 (32)		n.a.		
	6 (64)		n.a.		
	7 (128)		n.a.		
	8 (256)	Miscellaneous	Integrated Dig. Module	0= No, 256= Yes	
	9 (512)		Integrated HDD	0= No, 512= Yes	
	10 (1024)		n.a.		
	11 (2048)		n.a.		
	12 (4096)		Anti Aging	0= No, 4096= Yes	Fixed to: "Yes" for FTV.
	13 (8192)	Personal	DVD Door Lock	0= No, 8192= Yes	
	14 (16384)		n.a.		
	15 (32768)		n.a.		

Byte	Bit (dec. value)	Subject	Options	Settings (in decimal values)	Remarks
5	0 (1)	Personal	n.a.		
	1 (2)		Auto Store Mode	0= None, 2= PDC/VPS, 4= TXT Page, 6= PDC/VPS/TXT Page	Fixed to: "None" in the AP-N and US versions.
	2 (4)				
	3 (8)		2CS Korea	0= BTSC, 8= Korean Stereo	As the MSP can not automatically detect if Korean stereo (2CS) or BTSC is transmitted, this option is needed to tell the MSP what detection should be done.
	4 (16)		Blue (or Picture) Mute	0= No, 16 = Yes	
	5 (32)		n.a.		
	6 (64)		Virgin Mode	0= No, 64= Yes	
	7 (128)	Miscellaneous	Hotel Mode	0= No, 128= Yes	
	8 (256)	Personal	Flex TV Demo	0= No, 256= Yes	
	9 (512)	n.a.	n.a.		
	10 (1024)	Miscellaneous	Dimming Backlight	0= No, 1024= Yes	
	11 (2048)	n.a.	n.a.		
	12 (4096)	Personal	TXT Preference	0= Top, 4096= FLOF	Only available in the EU version.
	13 (8192)	n.a.	n.a.		
	14 (16384)	n.a.	n.a.		
	15 (32768)	n.a.	n.a.		
6	0 (1)	Miscellaneous	P50 DVD Menu Line	0= No, 1= Yes	Fixed to: "No" in all versions except for EU.
	1 (2)		n.a.		
	2 (4)		n.a.		
	3 (8)		n.a.		
	4 (16)	Chassis/Region	Region	0= EU, 16= AP-P, 32= AP-N, 48= US, 64= Latam, 80= Australia	
	5 (32)				
	6 (64)				
	7 (128)				
	8 (256)	Display	Screen	"000" (0)= 42 inch PDP SDI (v3) "001" (256)= 50 inch PDP SDI (v3) "002" (512)= 42 inch PDP FHP "003" (768)= 30 inch LCD LPL "004" (1024)= 37 inch LCD LPL "005" (1280)= 42 inch LCD LPL "006" (1536)= 32 inch LCD Sharp "007" (1792)= 42 inch PDP SDI VGA (v3) "008" (2048)= 37 inch PDP FHP "011" (2816)= 32 inch PDP LPL "025" (6400)= 42 inch PDP SDI HD (v4) "026" (6656)= 42 inch PDP FHP HD A2 "027" (6912)= 50 inch PDP SDI HD (v4)	Fixed to "0" in case of CRT.
	9 (512)				
	10 (1024)				
	11 (2048)				
	12 (4096)				
	13 (8192)				
	14 (16384)				
	15 (32768)				
7	0 (1)	Source Selection	EXT4 1fH	0= No, 1= Yes	
	1 (2)		EXT1 2fH	0= No, 2= Yes	
	2 (4)		n.a.		
	3 (8)		n.a.		
	4 (16)		n.a.		
	5 (32)		EXT3 1fH	0= No, 32= Yes	
	6 (64)		DVI/VGA	0= No, 64= Yes	
	7 (128)		HDMI (Europe)	0= No, 128= Yes	
	8 (256)		AV3 1fH	0= No, 256= Yes	
	9 (512)		AV1 2fH	0= No, 512= Yes	
	10 (1024)		AV2 2fH	0= No, 1024= Yes	
	11 (2048)		n.a.		
	12 (4096)		n.a.		
	13 (8192)		n.a.		
	14 (16384)		n.a.		
	15 (32768)		HDMI (Non- Europe)	0= No, 32768= Yes	
8	0 (1)	Audio Repro	Acoustic System	0= FTV-Top (499), 1= Soft Wrap (496, 498), 2= Wrap (496, 498), 3= FTV2.3 (505), 4= FL9 Monitor (n.a.), 5= FL10 (n.a.), 6= FL11 or FL11-upgr. (380, 382, 406, 425, 426, 534), 7= FL12 (296, 305, 395, 408, 428, 444), 8= FL14 (n.a.), 9= PV02 (462), 10= FL13A (456), 11= Soft Design Line (336, 383), 12= Tech Design Line (419), 14= FL13B (456), 15= Others	Used for setting dynamic audio parameters. Between brackets the styling numbers are mentioned as listed in the quarterly Product Survey.
	1 (2)				
	2 (4)				
	3 (8)				
	4 (16)	n.a.	n.a.		
	5 (32)	n.a.	n.a.		
	6 (64)	Audio Repro	AVL	0= No, 64= Yes	Switch to "No" when Dolby Digital is present.
	7 (128)		1080i Screen	0= 2fH path, 128= 3fH path	
	8 (256)	Display	CRT Size	0= 28", 256= 32", 512= 36" MEC, 768= 29", 1024= 34", 1280= 38", 1536= 28" Mk2, 1792= 36" PH, 2048= 32" MEC, 2304= 32" PH, 2560= 30", 2816= 37", 3072= 42", 3328= 50", 3840= Others	
	9 (512)				
	10 (1024)				
	11 (2048)				
	12 (4096)		Anti Moire Filter	0= No, 4096= Yes	Only for CRT
	13 (8192)		Display Type	0= LCD (LPL), 8192= PDP, 16384= CRT, 24576= LCoS, 32768= PTV, 40960= LCD (AUO), 49152= LCD (Sharp)	
	14 (16384)				
	15 (32768)				

9. Circuit Descriptions, Abbreviation List, and IC Data Sheets

Index of this chapter:
9.1 Introduction
9.2 Abbreviation List

Note:
Only **new** (not recently published) circuits are described here. As this chassis does not contain any really new circuits, use the FTP2.2x manual for the circuit descriptions.

9.1 Introduction

This chassis contains, compared to its predecessor, the following **new/changed** features/components:

- **Small Signal Board** (SSB). Small layout changes and new software to support the 720p feature.
- **Dual Ambient Light inverter panels**: To reduce the heat dissipation and improve the efficiency, two separate CCFL inverter panels are introduced in some models.

The chassis consists of a full sized SSB, a Power Supply, and some smaller PWBs for Audio, I/O, and Control functions. The main functionalities are:

- **Power Supply**:
  - For **FHP** displays, this is an LLC power supply, based on the one used in the earlier plasma monitors (FMxx chassis). This supply (single sided) is built up very conventional, with hardly any surface mounted components on the copper side.
  - For **SDI** displays, this is a "black box" for Service (board/module swap).
- **SSB**: Core TV functionalities, being TXT/control, video and audio decoding, feature box, video featuring, and sync/geometry control. The SSB is a high tech module (four layer, 2 sides reflow technology, full SMC) with very high component density and full shielding for EMC-reasons. Despite this, it is designed in such a way, that repair on component level is possible. To achieve this, attention was paid to:
  - Clearance around surface mounted ICs (for replacing).
  - Detailed diagnostics and fault finding is possible via ComPair.
  - Software upgrading (only for main software) is possible via ComPair.

9.2 Abbreviation List

1080i	1080 visible lines, interlaced
1080p	1080 visible lines, progressive scan
2DNR	Spatial (2D) Noise Reduction
3DNR	Temporal (3D) Noise Reduction
AARA	Automatic Aspect Ratio Adaptation: algorithm that adapts aspect ratio to remove horizontal black bars; keeping up the original aspect ratio
ACI	Automatic Channel Installation: algorithm that installs TV sets directly from cable network by means of a predefined TXT page
ADC	Analogue to Digital Converter
AFC	Automatic Frequency Control: control signal used to tune to the correct frequency
AGC	Automatic Gain Control: algorithm that controls the video input of the feature-box
AM	Amplitude Modulation
ANR	Automatic Noise Reduction: one of the algorithms of Auto TV
AR	Aspect Ratio: 4 by 3 or 16 by 9
Artistic	See OTC 2.5: main processor
ASF	Auto Screen Fit: algorithm that adapts aspect ratio to remove horizontal black bars but without throwing away video information
ATV	See Auto TV
AUDIO_C	Audio Centre
AUDIO_L	Audio Left
AUDIO_R	Audio Right
AUDIO_SL	Audio Surround Left
AUDIO-SR	Audio surround right
AUDIO_SW	Audio Sub woofer
Auto TV	A hardware and software control system that measures picture content, and adapts image parameters in a dynamic way
B/G	Monochrome TV system. Sound carrier distance is 5.5 MHz. B= VHF-band, G= UHF-band
B-SC1-IN	Blue SCART1 in
B-SC2-IN	Blue SCART2 in
B-TXT	Blue teletext
CL	Constant Level: audio output to connect with an external amplifier
ComPair	Computer aided rePair
CSM	Customer Service Mode
CTI	Colour Transient Improvement: manipulates steepness of chroma transients
CVBS	Composite Video Blanking and Synchronisation
CVBS-TER	CVBS terrestrial
COLUMBUS	COLour LUMinance Baseband Universal Subsystem. IC performing noise reduction and 2D/3D comb filtering
DAC	Digital to Analogue Converter
DBE	Dynamic Bass Enhancement: extra low frequency amplification
DDC	Display Data Channel; is a part of the "Plug and Play" feature
DFU	Direction For Use: description for the end user
D/K	Monochrome TV system. Sound carrier distance is 6.5 MHz. D= VHF-band, K= UHF-band

DNR	Digital Noise Reduction: noise reduction feature of the box
DPL	Dolby ProLogic
DSP	Digital Signal Processing
DST	Dealer Service Tool: special remote control designed for dealers to enter e.g. service mode
DVD	Digital Versatile Disc
DVI(-d)(-i)	Digital Visual Interface (d= digital only) (i= integrated); a digital video interface to a display, designed to replace the analogue YPbPr or RGB interface
Eagle	Feature box IC performing peaking, zooming and sub pixel LTI in both horizontal and vertical direction, CTI and other colour features
EDID	Extended Display Identification Data (VESA standard)
EEPROM	Electrically Erasable and Programmable Read Only Memory
EHT	Extra High Tension
EPG	Electronic Program Guide: system used by broadcasters to transmit TV guide information (= NexTView)
EPLD	Erasable Programmable Logic Device
EU	EUrope
EXT	External (source), entering the set via SCART or via cinches
FALCONIC	SAA4992H, Feature Box IC performing Digital Natural Motion, 3DNR, and vertical zoom and vertical peaking
FBL	Fast Blanking: DC signal accompanying RGB signals
FBL-PIP	The fast blanking signal for PIP
FBL-TXT	The fast blanking signal for TXT. It has a higher priority than FBL-PIP
FBX	Feature Box: part of small signal / separate module which contains 100 Hz processing, extra featuring and AutoTV algorithms (FBX6= based on PICNIC, FBX7= based on PICNIC and Eagle)
FDS	Full Dual Screen
FEM	Falconic Embedded Memory; IC (SAA4998H) that is the successor of the SAA4993H with jagged line removal and embedded memory
FHP	Fujitsu Hitachi Plasma display Ltd.
FLOF	Full Level One Features, TXT standard
FLASH	Flash memory
FM	Field Memory or Frequency Modulation
G-TXT	Green teletext
HA	Horizontal Acquisition: horizontal sync pulse coming out of the HIP
HD at HOME	A signal from the OTC, to switch the HOP to the Pixel Plus standard (75 Hz frame)
HIP	High-end video Input Processor (TDA9320): video and chroma decoder of EM5E
HP	Head phone
I	Monochrome TV system. Sound carrier distance is 6.0 MHz. VHF- and UHF-band
I/O	Input/Output
I^2C	Inter IC bus (also called IIC)
IF	Intermediate Frequency
Interlaced	Scan mode where two fields are used to form one frame. Each field contains half the number of the total amount of lines. The fields are written in "pairs", causing line flicker
Last Status	The settings last chosen by the customer, read, and stored in RAM or in the NVM. They are called at start-up of the set to configure it according the customers wishes
LCD	Liquid Crystal Display
LPL	LG-Philips LCD
LED	Light Emitting Diode
L/L'	Monochrome TV system. Sound carrier distance is 6.5 MHz. L' is Band I, L is all bands except for Band I
LNA	Low Noise Adapter
LORE	LOcal REgression based noise reduction
LSP	Large signal panel
LVDS	Low Voltage Differential Signalling; Data transmission system for high speed and low EMI communication
M/N	Monochrome TV system. Sound carrier distance is 4.5 MHz. M= 525 lines @ 60 Hz, N= 625 lines @ 50 Hz
MUTE	Mute-Line
NC	Not Connected
NICAM	Near Instantaneously Companded Audio Multiplexing; This is a digital sound system, mainly used in Europe
NTSC	National Television Standard Committee; Colour system mainly used in North America and Japan. Colour carrier NTSC M/N= 3.579545 MHz, NTSC 4.43= 4.433619 MHz (this is a VCR norm, it is not transmitted off-air)
NVM	Non Volatile Memory: IC containing TV related data e.g. alignments
O/C	Open Circuit
OSD	On Screen Display
OTC	On screen display Teletext and Control; also named Artistic (SAA5800)
P50	Project 50 communication: protocol between TV and peripherals
PAL	Phase Alternating Line; Colour system mainly used in West Europe (colour carrier= 4.433619 MHz) and South America (colour carrier PAL M= 3.575612 MHz and PAL N= 3.582056 MHz)
PCB	Printed Circuit Board
PDP	Plasma Display Panel
PFC	Power Factor Corrector (or Pre-conditioner)
PICNIC	Peripheral Integrated Combined Network IC (SAA4978): main IC for 100 Hz featuring and feature processing
PIP	Picture In Picture
PLL	Phase Locked Loop; Used for e.g. FST tuning systems. The customer can directly provide the desired frequency
POR	Power On Reset; Signal to reset the µP
Progressive Scan	Scan mode where all scan lines are displayed in one frame at the same time, creating a double vertical resolution.
PSU	Power Supply Unit
PWB	Printed Wiring Board
RAM	Random Access Memory
R-TXT	Red teletext
RC	Remote Control
RC5 / RC6	Signal protocol from the remote control receiver
RESET	Reset signal

RGB	Red, Green, and Blue colour space; The primary colour signals for TV. By mixing levels of R, G, and B, all colours (Y/C) are reproduced
RGBHV	Red, Green, Blue, Horizontal sync, and Vertical sync
ROM	Read Only Memory
SAM	Service Alignment Mode
S/C	Short Circuit
SCL-F	Clock signal on fast I^2C bus
SD	Standard Definition
SDA-F	Data signal on fast I^2C bus
SDI	Samsung Display Industry
SECAM	SÉquence Couleur Avec Mémoire; Colour system mainly used in France and East Europe. The chroma is FM modulated and the R-Y and B-Y signals are transmitted line sequentially. Colour carriers= 4.406250 MHz and 4.250000 MHz
SIF	Sound Intermediate Frequency
SMD	Surface Mounted Device
SMPS	Switched Mode Power Supply
SNERT	Synchronous No parity Eight bit Reception and Transmit
SSB	Small Signal Board
STBY	Stand-by
SW	Sub woofer
SVGA	800x600 (4:3)
SVHS	Super Video Home System
TMDS	Transition Minimised Differential Signalling
TOP	Table Of Pages; TXT standard
TXT	Teletext
uP	Microprocessor
UV	Colour difference signals
UVSH	UHF, VHF, S-, and Hyper-band
VA	Vertical Acquisition
V-a	Addressing voltage for the plasma display
VDS	Virtual Dolby Surround
VESA	Video Electronics Standards Association
VFB	Vertical Flyback Pulse: vertical sync pulse coming from the Feature Box
VGA	Video Graphics Array; 640x480 (4:3)
VL	Variable Level out: processed audio output towards external amplifier
V-ra	Setting voltage for V_a
V-rs	Setting voltage for V_s
V-s	Sustain voltage for the plasma display
WSS	Wide Screen Signalling; used by broadcasters to transmit e.g. PALPLUS and 16:9 Aspect Ratio
WXGA	Wide eXtended Graphics Array; 1280x768 (15:9) or 1366x768 (16:9)
WYSIWYR	What You See Is What You Record: record selection that follows main picture and sound
XGA	Extended Graphics Array; 1024x768 (4:3)
XTAL	Quartz crystal
Y	Luminance signal
Y100	Y from Feature Box
YPbPr	This is a scaled version of the YUV colour space. Y= Luminance, Pb/Pr= Colour difference signals B-Y and R-Y, other amplitudes w.r.t. to YUV
Y-OUT	Luminance-signal to HOP IC
YUV	Colour space used by the NTSC and PAL video systems. Y is the luminance and U/V are the colour difference signals

10. Spare Parts List

Set Level

Various

1004▲	8204 000 78201	S50HW-XD04 (SDI)
1004▲	9322 224 77682	FPF42C128128UD(FHP)
1004▲	9322 215 25682	PDP S42AX-XD03
1004▲	9322 215 26682	PDP S50HW-XD03
1004▲	9322 225 38682	PDP S42AX-YD01
1004▲	9322 226 97682	PDP S50HW-XD04
1012	3104 328 32472	LED assy [J]
1074	3104 328 28911	Audio Amplifier assy [C]
1088	3104 328 39552	AmbiLight Inv. assy [AL]
1089	3104 328 39552	AmbiLight Inv. assy [AL]
1116	3104 328 32461	Side I/O assy [D]
1175	2722 171 00297	AmbiLight assy R 42”
1175	2722 171 00263	AmbiLight assy R 50”
1176	2722 171 00296	AmbiLight assy L 42”
1176	2722 171 00261	AmbiLight assy L 50”
8302	3104 311 07591	Cable 7p/820/7p
8302	3104 311 08931	Cable 7p/1000/7p
8302	3104 311 10091	Cable 7p/820/7p
8303	3104 311 08941	Cable 10p/480/10p
8310	3104 311 08711	Cable 4p/820/4p
8310	3104 311 08721	Cable 4p/680/4p
8310	3104 311 10641	Cable 4p/820/4p
8311	3104 311 09431	Cable 3p+3p11/1160/3p
8311	3104 311 09441	Cable 3p+3p11/1530/3p
8313	3104 311 08511	Cable 3p+3p11/500/2x3p
8313	3104 311 09071	Cable 3p+3p11/250/3p
8350	3104 311 08831	Cable 31p/300/31p
8350	3104 311 08841	Cable 31p/220/31p
8508	3104 311 10651	Cable 4p/1000/4p
8548	3104 311 10661	Cable 3p/1300/3p
8735	3104 311 08751	Cable 2p3/1700/2 POSI
8735	3104 311 09471	Cable 2p/1600/2p
8735	3104 311 09851	Cable 2p/1700/2p
8735	3104 311 10111	Cable 2p/1600/2p
8736	3104 311 07551	Cable 2p3/1600/2p
8736	3104 311 08741	Cable 2P3/1000/2 POSI
8736	3104 311 08751	Cable 2p3/1700/2 POSI
8736	3104 311 09721	Cable 2p/820/2p
8736	3104 311 09851	Cable 2p/1700/2p
8911	3104 311 07911	Cable ring/180/ring
8920	3104 311 08702	Wire ring/60/POSI

PDP Supply for FHP 42” [A]

Various

1004▲	9965 000 07788	Fuse 2A T 250V
1082▲	4822 071 52502	Fuse 2.5A
1083▲	4822 071 52502	Fuse 2.5A
1084▲	2422 086 10849	Fuse 1A F 250V
1110▲	4822 071 55002	Fuse 5A T 250V
1200▲	9965 000 07788	Fuse 2A T 250V
1260▲	4822 252 51186	Fuse 2A
1400▲	4822 253 30467	Fuse 6.3A
1402▲	4822 252 60151	Surge protect
1450▲	4822 280 10382	SDT-SS-109DM
1460▲	4822 280 10382	SDT-SS-109DM
1M05	2422 025 16374	Connector 2p m
1M10	2422 025 09406	Connector 4p m

⊣⊢

2000▲	2252 811 95017	470pF 10% 250V
2001▲	2222 338 22474	470nF 20% 275V
2005	2238 867 18101	100pF 1% 50V 0603
2006	2020 552 96618	1nF 10% 50V 0402
2007	2238 586 59812	100nF 20% 50V 0603
2008	5322 126 11583	10nF 10% 50V 0603
2010	5322 126 11583	10nF 10% 50V 0603
2011	2222 375 24153	15nF 5% 1kV
2012	4822 126 11254	330pF 10% 2kV
2013	4822 126 11254	330pF 10% 2kV
2014	4822 126 13862	1.5nF 10% 2kV
2015	5322 126 11583	10nF 10% 50V 0603
2017	2222 375 24153	15nF 5% 1kV
2018	2238 867 18101	100pF 1% 50V 0603
2019▲	2252 811 95017	470pF 10% 250V
2020	2020 024 90737	3300µF 20% 100V
2021	2020 024 90737	3300µF 20% 100V
2022	2020 021 91354	1000µF 20% 50V
2023	2222 580 15649	100nF 10% 50V 0805
2024	3198 035 03320	3.3nF 5% 50V 0402
2025	4822 124 12084	1µF 20% 50V
2026	2020 552 96623	2.2nF 10% 50V 0402
2027	2020 552 96631	15nF 10% 16V 0402
2028	2238 930 11541	220pF 5% 200V
2029	2238 930 11541	220pF 5% 200V
2030	2238 586 59812	100nF 20% 50V 0603
2031	2020 552 96628	10nF 10% 16V 0402
2032	2238 586 15641	22nF 10% 50V 0603
2033	2238 586 59812	100nF 20% 50V 0603
2034	4822 126 14525	47pF 5% 1kV
2035	2020 552 96618	1nF 10% 50V 0402
2036	2238 586 15641	22nF 10% 50V 0603
2037	4822 126 14525	47pF 5% 1kV
2038	2020 552 96618	1nF 10% 50V 0402
2039	2020 552 96623	2.2nF 10% 50V 0402
2040	3198 034 02790	47pF 1% 50V 0402
2041	2238 869 15101	100pF 5% 50V 0402
2042	3198 035 03310	330pF 5% 50V 0402
2043	4822 124 12084	1µF 20% 50V
2044	2238 930 11541	220pF 5% 200V
2045	2238 930 11541	220pF 5% 200V
2046	2252 568 08305	33pF 5% 500V
2047	2238 586 59812	100nF 20% 50V 0603
2048	2020 552 96683	220nF 10% 50V
2049	2238 867 18101	100pF 1% 50V 0603
2050	2238 586 15641	22nF 10% 50V 0603
2051	4822 122 33177	10nF 20% 50V
2052	4822 124 12056	1000µF 20% 35V
2053	2022 031 00308	22µF 20% 35V
2054	2238 869 15221	220pF 1% 50V 0402
2055	2020 552 96621	1.5nF 10% 50V 0402
2056	2238 869 15221	220pF 1% 50V 0402
2057	2020 552 96621	1.5nF 10% 50V 0402
2058	4822 124 41828	1µF 20% 250V
2059	2238 586 59812	100nF 20% 50V 0603
2060	2020 552 96683	220nF 10% 50V
2061	2238 586 59812	100nF 20% 50V 0603
2070	2020 552 96618	1nF 10% 50V 0402
2071	2020 552 96618	1nF 10% 50V 0402
2111	2238 869 15221	220pF 1% 50V 0402
2112	2020 552 96618	1nF 10% 50V 0402
2113	4822 124 12379	220µF 25V
2114	2020 552 96683	220nF 10% 50V
2118	4822 126 13449	1nF 10% 2kV
2121	2020 024 90736	2200µF 20% 100V
2122	4822 121 51319	1µF 10% 63V
2123	3198 035 03320	3.3nF 5% 50V 0402
2126	2238 586 59812	100nF 20% 50V 0603
2133	4822 124 81151	22µF 50V
2203	2238 586 59812	100nF 20% 50V 0603
2210	4822 124 80151	47µF 16V
2211	3198 035 04710	470pF 50V 0402
2212	2020 552 96326	220nF 10% 16V
2213	3198 035 14720	4.7nF 5% 25V 0402
2214	3198 035 14720	4.7nF 5% 25V 0402
2215	3198 035 04710	470pF 50V 0402
2218	2222 375 90141	3.3nF 1.6kV 5%
2222	2238 869 15101	100pF 5% 50V 0402
2223	2238 869 15101	100pF 5% 50V 0402
2225	2020 021 91551	2200µF 20% 25V
2226	2238 586 59812	100nF 20% 50V 0603
2227	2238 869 15101	100pF 5% 50V 0402
2229	2020 021 00036	470µF 20% 16V
2230	2020 021 00036	470µF 20% 16V
2231	4822 124 80151	47µF 16V
2232	2238 869 15101	100pF 5% 50V 0402
2234	2022 552 05679	1µF 10% 16V 0805
2236	4822 124 23002	10µF 16V
2237	4822 124 23002	10µF 16V
2263	2222 861 15272	2.7nF 5% 50V 0805
2264	4822 126 14583	470nF 10% 16V 0805
2265	3198 035 03310	330pF 5% 50V 0402
2267	5322 122 32531	100pF 5% 50V
2268	2020 552 96683	220nF 10% 50V
2269	4822 123 14025	2200µF 20% 16V
2270	4822 124 40433	47µF 20% 25V
2273	2238 586 59812	100nF 20% 50V 0603
2274	2020 552 96628	10nF 10% 16V 0402
2290	5322 126 11583	10nF 10% 50V 0603
2291	3198 035 04710	470pF 50V 0402
2293	3198 035 04710	470pF 50V 0402
2295	3198 035 04710	470pF 50V 0402
2296	3198 035 04710	470pF 50V 0402
2304	2020 552 96618	1nF 10% 50V 0402
2305	2238 586 59812	100nF 20% 50V 0603
2306	2238 586 59812	100nF 20% 50V 0603
2322	2238 586 59812	100nF 20% 50V 0603
2324	2238 586 59812	100nF 20% 50V 0603
2350	4822 124 12095	100µF 20% 16V
2352	2238 586 59812	100nF 20% 50V 0603
2364	2238 586 59812	100nF 20% 50V 0603
2376	2238 586 59812	100nF 20% 50V 0603
2377	2238 586 59812	100nF 20% 50V 0603
2381	2238 586 59812	100nF 20% 50V 0603
2397	4822 124 12095	100µF 20% 16V
2398	4822 124 23002	10µF 16V
2400▲	2222 338 22474	470nF 20% 275V
2401▲	2222 338 22474	470nF 20% 275V
2404	4822 126 14525	47pF 5% 1kV
2405▲	2252 811 95017	470pF 10% 250V
2406	4822 126 14525	47pF 5% 1kV
2407▲	2252 811 95017	470pF 10% 250V
2465	4822 124 12095	100µF 20% 16V
2502	2238 869 15101	100pF 5% 50V 0402
2503	2020 024 90708	47µF 400V 20%
2504	2020 552 96618	1nF 10% 50V 0402
2505	4822 124 12056	1000µF 20% 35V
2507	2238 869 15101	100pF 5% 50V 0402
2508	4822 124 12095	100µF 20% 16V
2509	2238 869 15101	100pF 5% 50V 0402
2510	2020 021 91506	1000µF 20% 16V
2511	2238 586 59812	100nF 20% 50V 0603
2512	2238 586 59812	100nF 20% 50V 0603
2513	2222 580 15649	100nF 10% 50V 0805
2532	4822 124 12095	100µF 20% 16V
2533	4822 124 12095	100µF 20% 16V
2534	2022 552 05679	1µF 10% 16V 0805
2540	4822 124 12095	100µF 20% 16V
2541	4822 124 12095	100µF 20% 16V
2600	4822 122 33799	1nF 10% 1kV
2601	4822 122 33799	1nF 10% 1kV
2602	2020 552 96623	2.2nF 10% 50V 0402
2603	2222 383 90136	1µF 5% 400V
2605	2222 383 90136	1µF 5% 400V
2608	2020 552 96618	1nF 10% 50V 0402
2610	4822 121 70584	1.8nF 5% 2kV
2611	4822 126 12263	220pF 10% 2kV
2612	2020 552 96618	1nF 10% 50V 0402
2614	2020 552 96623	2.2nF 10% 50V 0402
2616	4822 124 12415	220µF 20% 400V
2617	4822 124 12415	220µF 20% 400V
2640	3198 035 04710	470pF 50V 0402
2642	2020 552 96618	1nF 10% 50V 0402
2651	2020 552 96628	10nF 10% 16V 0402
2653	3198 035 06810	680pF 5% 50V 0402
2654	4822 124 80151	47µF 16V
2655	2022 552 05679	1µF 10% 16V 0805
2656	2222 580 15649	100nF 10% 50V 0805
2660	4822 126 13881	470pF 5% 50V
2661	2020 552 96618	1nF 10% 50V 0402
2662	4822 124 80061	1000µF 20% 25V
2663	4822 121 51319	1µF 10% 63V
2664	4822 124 40255	100µF 20% 63V
2665	4822 126 13881	470pF 5% 50V
2666	2020 552 96793	4.7nF 10% 50V 0402
2670	2238 586 59812	100nF 20% 50V 0603
2671	2238 586 59812	100nF 20% 50V 0603
2672	2222 580 15649	100nF 10% 50V 0805
2673	2020 558 90621	10nF 630V
2674	2020 558 90621	10nF 630V
2675	2020 558 90621	10nF 630V
2676	2020 558 90621	10nF 630V
2677	2020 552 96623	2.2nF 10% 50V 0402
2690	2020 552 96618	1nF 10% 50V 0402

⌐WW⌐

3001	4822 051 30471	47Ω 5% 0.062W
3002	4822 051 30471	47Ω 5% 0.062W
3003	4822 117 11297	100kΩ 5% 0.1W
3004	3198 031 01530	15kΩ 5% 0.01W 0402
3005	3198 031 02730	27kΩ 5% 0402
3006	4822 117 13606	10kΩ 5% 0.01W 0402
3007	3198 031 04720	4.7kΩ 5% 0402
3008	4822 051 30102	1kΩ 5% 0.062W
3009	4822 051 30102	1kΩ 5% 0.062W
3010	3198 031 01530	15kΩ 5% 0.01W 0402
3011	4822 051 30561	560Ω 5% 0.062W
3012	3198 031 04720	4.7kΩ 5% 0402
3013	4822 117 13606	10kΩ 5% 0.01W 0402
3014	4822 050 23309	33Ω 1% 0,6W
3015	4822 050 21009	10Ω 1% 0.6W
3016	4822 051 10102	1kΩ 2% 0.25W
3017	4822 050 23309	33Ω 1% 0,6W
3018	4822 050 21009	10Ω 1% 0.6W
3019	4822 051 10102	1kΩ 2% 0.25W
3020	3198 031 05630	56kΩ 5% 0402
3022	4822 051 30681	680Ω 5% 0.062W

3023	3198 031 04730	47Ω 5% 0402
3025	2322 706 71802	1.8kΩ 5% 0402
3027	3198 031 04730	47Ω 5% 0402
3028	2322 704 67502	7.5kΩ 1% 0.5W
3029	4822 051 30123	12kΩ 5% 0.1W
3030	3198 031 01830	18kΩ 5% 0.01W 0402
3031	2322 706 71003	10kΩ 5% 0402
3032	2322 706 71003	10kΩ 5% 0402
3033	2322 705 70184	180Ω 5% 0402
3034	4822 117 13596	220Ω 5% 0.01W 0402
3036	2122 612 00068	NTC 1Ω 20% 6W
3037	4822 117 13606	10kΩ 5% 0.01W 0402
3038	4822 117 11297	100kΩ 5% 0.1W
3039	4822 051 30105	1MΩ 5% 0.062W
3040	4822 117 10837	100kΩ 1% 0.1W
3041	4822 117 13603	33kΩ 5% 0402
3042	4822 051 30471	47Ω 5% 0.062W
3043	3198 031 04720	4.7kΩ 5% 0402
3044	4822 051 30102	1kΩ 5% 0.062W
3045	4822 051 30102	1kΩ 5% 0.062W
3047	3198 031 01540	150kΩ 5% 0402
3048	3198 031 04720	4.7kΩ 5% 0402
3049	3198 031 01230	12kΩ 5% 0402
3050▲	4822 052 10398	3.9Ω 5% 0,33W
3051	4822 051 20822	8.2kΩ 5% 0.1W
3053▲	2322 662 93131	PTC 10Ω
3054	4822 117 13543	470Ω 5% 0402
3055	4822 117 10833	10kΩ 1% 0.1W
3056	4822 051 30331	330Ω 5% 0.062W
3057	4822 051 30101	100Ω 5% 0.062W
3058	4822 051 20105	1MΩ 5% 0.1W
3059	3198 031 05630	56kΩ 5% 0402
3060	4822 050 22204	220kΩ 1% 0.6W
3061	3198 031 01830	18kΩ 5% 0.01W 0402
3062	4822 117 13548	1kΩ 5% 0402
3063	4822 117 13548	1kΩ 5% 0402
3064	4822 117 13606	10kΩ 5% 0.01W 0402
3065	4822 117 13548	1kΩ 5% 0402
3066	4822 117 13606	10kΩ 5% 0.01W 0402
3067	3198 031 01530	15kΩ 5% 0.01W 0402
3068	4822 117 13606	10kΩ 5% 0.01W 0402
3069	4822 051 30471	47Ω 5% 0.062W
3070	4822 051 30103	10kΩ 5% 0.062W
3071	3198 031 04730	47Ω 5% 0402
3073	3198 031 01050	1MΩ 5% 0402
3074	3198 031 01530	15kΩ 5% 0.01W 0402
3075	4822 051 20105	1MΩ 5% 0.1W
3076	4822 117 11297	100kΩ 5% 0.1W
3077	4822 051 20105	1MΩ 5% 0.1W
3078	4822 117 11297	100kΩ 5% 0.1W
3079	4822 051 30681	680Ω 5% 0.062W
3080	4822 051 30681	680Ω 5% 0.062W
3081	3198 031 01520	1.2kΩ 5% 0.01W 0402
3082	3198 031 01520	1.2kΩ 5% 0.01W 0402
3083	2312 915 11002	1kΩ 1% 0.5W
3084	4822 117 13606	10kΩ 5% 0.01W 0402
3085	3198 031 04730	47Ω 5% 0402
3086	3198 031 04730	47Ω 5% 0402
3087	3198 031 04730	47Ω 5% 0402
3088	3198 031 04730	47Ω 5% 0402
3089	4822 117 13606	10kΩ 5% 0.01W 0402
3090	4822 117 13545	100Ω 1% 0402
3091	4822 051 30102	1kΩ 5% 0.062W
3092	4822 051 10102	1kΩ 2% 0.25W
3093	4822 117 13548	1kΩ 5% 0402
3094	4822 051 10102	1kΩ 2% 0.25W
3095	4822 117 13543	470Ω 5% 0402
3096	3198 031 05620	5.6kΩ 5% 0.01W 0402
3097	3198 031 08210	820Ω 5% 0.5W
3098	4822 117 13548	1kΩ 5% 0402
3100	2322 706 71002	1kΩ 1% 0402
3101	2322 706 71002	1kΩ 1% 0402
3102	2322 706 71002	1kΩ 1% 0402
3103	2322 706 71002	1kΩ 1% 0402
3104	2322 706 71002	1kΩ 1% 0402
3106	4822 117 12955	2.7kΩ 1% 0.1W 0805
3107	4822 117 12955	2.7kΩ 1% 0.1W 0805
3108	4822 117 12955	2.7kΩ 1% 0.1W 0805
3109	4822 117 12955	2.7kΩ 1% 0.1W 0805
3110	4822 117 13548	1kΩ 5% 0402
3112	4822 051 30102	1kΩ 5% 0.062W
3114	2322 705 70564	560kΩ 5% 0402
3115	3198 031 02240	220kΩ 5% 0.1W 0402
3116	4822 117 13548	1kΩ 5% 0402
3117	4822 117 13606	10kΩ 5% 0.01W 0402
3118	2122 118 06084	0.051Ω 5% 1W 2512
3120	3198 021 31820	1.8kΩ 5% 0.062W 0603
3121	3198 031 04730	47Ω 5% 0402
3123	4822 117 10965	18kΩ 1% 0.1W
3124	2322 704 67502	7.5kΩ 1% 0.5W
3125	2322 704 67502	7.5kΩ 1% 0.5W
3126	2322 706 72202	2.2kΩ 5% 0402
3128	4822 117 13603	33kΩ 5% 0402
3130	4822 051 30123	12kΩ 5% 0.1W
3131	2322 706 71003	10kΩ 5% 0402
3132	4822 117 13596	220Ω 5% 0.01W 0402
3133	4822 051 30101	100Ω 5% 0.062W
3134	4822 051 30681	680Ω 5% 0.062W
3135	3198 031 04730	47Ω 5% 0402
3136	3198 031 04730	47Ω 5% 0402
3143	4822 053 12472	4.7kΩ 5% 3W
3147	2322 706 71003	10kΩ 5% 0402
3149▲	4822 052 10478	4.7Ω 5% 0.33W
3150	3198 031 01050	1MΩ 5% 0402
3200	3198 021 52240	220kΩ 5% 0805
3202	4822 051 30479	47Ω 5% 0.062W
3203	4822 051 30101	100Ω 5% 0.062W
3204	4822 117 11297	100kΩ 5% 0.1W
3205	4822 117 11297	100kΩ 5% 0.1W
3206	4822 117 12955	2.7kΩ 1% 0.1W 0805
3207	4822 117 12955	2.7kΩ 1% 0.1W 0805
3208	4822 117 12955	2.7kΩ 1% 0.1W 0805
3209	4822 117 12955	2.7kΩ 1% 0.1W 0805
3210	2322 706 71002	1kΩ 1% 0402
3212	4822 051 30102	1kΩ 5% 0.062W
3213	4822 117 13603	33kΩ 5% 0402
3214	2322 705 70124	120kΩ 5% 0402
3215	2322 705 70274	270kΩ 5% 0402
3216	4822 117 13548	1kΩ 5% 0402
3217	4822 117 13606	10kΩ 5% 0.01W 0402
3218	2122 118 06084	0.051Ω 5% 1W 2512
3219	4822 117 13606	10kΩ 5% 0.01W 0402
3220	4822 050 23309	33Ω 1% 0,6W
3224	2322 706 71203	12kΩ 5% 0402
3225	2322 706 71003	10kΩ 5% 0402
3226	4822 117 13606	10kΩ 5% 0.01W 0402
3228	4822 051 30151	150Ω 5% 0.062W
3262	2322 706 71003	10kΩ 5% 0402
3263	2322 706 71003	10kΩ 5% 0402
3265	4822 117 13548	1kΩ 5% 0402
3268	4822 117 13548	1kΩ 5% 0402
3269	3198 031 02720	2.7kΩ 5% 0.01W 0402
3292	4822 051 30561	560Ω 5% 0.062W
3300	2322 706 72204	220kΩ 5% 0402
3301	2322 706 72204	220kΩ 5% 0402
3304	4822 051 30102	1kΩ 5% 0.062W
3306	2322 706 71003	10kΩ 5% 0402
3307	5322 117 13028	12kΩ 1% 0.063W 0603
3308	4822 051 30102	1kΩ 5% 0.062W
3311	4822 117 13579	220kΩ 1% 0.1W 0805
3312	4822 051 30102	1kΩ 5% 0.062W
3313	2322 704 67502	7.5kΩ 1% 0.5W
3317	2322 704 67502	7.5kΩ 1% 0.5W
3320	2322 706 71003	10kΩ 5% 0402
3321	4822 051 30102	1kΩ 5% 0.062W
3322	2322 706 73902	3.9kΩ 1% 0402
3323	2322 706 71003	10kΩ 5% 0402
3324	4822 051 30102	1kΩ 5% 0.062W
3325	4822 051 30471	47Ω 5% 0.062W
3326	3198 031 04720	4.7kΩ 5% 0402
3327	4822 117 13606	10kΩ 5% 0.01W 0402
3328	4822 051 30103	10kΩ 5% 0.062W
3332	2322 706 76803	68kΩ 5% 0402
3333	4822 051 30102	1kΩ 5% 0.062W
3334	2322 706 71003	10kΩ 5% 0402
3335	2322 706 71503	15kΩ 5% 1W 0402
3340	4822 051 30102	1kΩ 5% 0.062W
3341	4822 117 13606	10kΩ 5% 0.01W 0402
3342	4822 051 30103	10kΩ 5% 0.062W
3343	4822 051 30102	1kΩ 5% 0.062W
3344	4822 051 30102	1kΩ 5% 0.062W
3345	4822 117 13548	1kΩ 5% 0402
3346	4822 117 13548	1kΩ 5% 0402
3347	4822 051 30331	330Ω 5% 0.062W
3348	4822 051 30331	330Ω 5% 0.062W
3349	4822 051 30102	1kΩ 5% 0.062W
3350	4822 051 30472	4.7Ω 5% 0.062W
3351	4822 051 30103	10kΩ 5% 0.062W
3352	4822 051 30103	10kΩ 5% 0.062W
3353	4822 117 13606	10kΩ 5% 0.01W 0402
3354	3198 031 04720	4.7kΩ 5% 0402
3358	4822 051 30222	2.2kΩ 5% 0.062W
3359	3198 031 05620	5.6kΩ 5% 0.01W 0402
3360	3198 031 01220	1.2kΩ 5% 0.01W 0402
3361	3198 031 04720	4.7kΩ 5% 0402
3362	3198 031 02720	2.7kΩ 5% 0.01W 0402
3363	4822 051 30102	1kΩ 5% 0.062W
3364	4822 051 30102	1kΩ 5% 0.062W
3366	4822 117 13606	10kΩ 5% 0.01W 0402
3367	4822 051 30103	10kΩ 5% 0.062W
3369	3198 031 04720	4.7kΩ 5% 0402
3370	2322 675 20907	PTC 470Ω 50% 25V 0805
3373	3198 031 04720	4.7kΩ 5% 0402
3374	3198 031 04730	47Ω 5% 0402
3376	3198 031 04730	47Ω 5% 0402
3377	3198 031 04720	4.7kΩ 5% 0402
3378	4822 117 13606	10kΩ 5% 0.01W 0402
3380	3198 031 04730	47Ω 5% 0402
3381	3198 031 04730	47Ω 5% 0402
3383	4822 117 13606	10kΩ 5% 0.01W 0402
3384	4822 117 13606	10kΩ 5% 0.01W 0402
3388	4822 051 30102	1kΩ 5% 0.062W
3389	4822 051 30102	1kΩ 5% 0.062W
3391	4822 117 13606	10kΩ 5% 0.01W 0402
3400▲	2122 550 00158	VDR 1mA 612V
3401▲	4822 117 10118	1MΩ 5% 0.5W
3404	4822 116 83872	220Ω 5% 0.5W
3450▲	2322 662 93131	PTC 10Ω
3451▲	2322 662 93131	PTC 10Ω
3452▲	2122 612 00068	NTC 1Ω 20% 6W
3460	4822 117 13602	2.2kΩ 5% 0.01W 0402
3461	4822 117 13606	10kΩ 5% 0.01W 0402
3463	4822 117 13606	10kΩ 5% 0.01W 0402
3465	4822 117 13606	10kΩ 5% 0.01W 0402
3467	4822 117 13606	10kΩ 5% 0.01W 0402
3469	3198 031 04720	4.7kΩ 5% 0402
3470	4822 117 13606	10kΩ 5% 0.01W 0402
3471▲	4822 117 13548	1kΩ 5% 0402
3472▲	4822 117 13548	1kΩ 5% 0402
3501	4822 051 30102	1kΩ 5% 0.062W
3502	4822 051 30471	47Ω 5% 0.062W
3503	2322 706 74702	4.7kΩ 5% 0402
3504	2322 706 73303	33kΩ 5% 0402
3505	2322 706 74702	4.7kΩ 5% 0402
3506▲	2322 662 93131	PTC 10Ω
3509	2312 915 11209	12Ω 1% 0.5W
3603	4822 051 20474	470kΩ 5% 0.1W
3604	4822 051 20474	470kΩ 5% 0.1W
3605	4822 051 20474	470kΩ 5% 0.1W
3606	4822 051 30101	100Ω 5% 0.062W
3607	4822 117 12891	220kΩ 1%
3608	2312 915 11209	12Ω 1% 0.5W
3609	4822 051 20474	470kΩ 5% 0.1W
3610	4822 050 23308	3.3Ω 1% 0.6W
3611	4822 050 21003	10kΩ 1% 0.6W
3613	4822 117 13606	10kΩ 5% 0.01W 0402
3614	2322 194 95001	0.27Ω 5% 2W
3615	2322 194 95001	0.27Ω 5% 2W
3616	3198 031 01230	12kΩ 5% 0402
3617	3198 031 04730	47Ω 5% 0402
3618	4822 117 13603	33kΩ 5% 0402
3619	3198 031 03320	3.3kΩ 5% 0402
3620	2322 194 95001	0.27Ω 5% 2W
3621	4822 050 22208	2.2Ω 1% 0,6W
3622	4822 050 22208	2.2Ω 1% 0,6W
3623	4822 117 13548	1kΩ 5% 0402
3639	4822 051 10102	1kΩ 2% 0.25W
3640	4822 051 30331	330Ω 5% 0.062W
3641	4822 051 20471	470Ω 5% 0.1W
3642	4822 117 11503	220Ω 1% 0.1W
3643	4822 117 11503	220Ω 1% 0.1W
3651	4822 117 13601	22kΩ 5% 0402
3652	3198 031 01050	1MΩ 5% 0402
3654	4822 117 13606	10kΩ 5% 0.01W 0402
3655	4822 117 13548	1kΩ 5% 0402
3656	3198 031 01820	1.8kΩ 5% 0.01W 0402
3659	4822 117 11503	220Ω 1% 0.1W
3660	4822 117 11504	270Ω 1% 0.1W
3661	4822 117 11504	270Ω 1% 0.1W
3663▲	4822 052 10108	1Ω 5% 0.33W
3664	2322 706 71204	120kΩ 5% 0402
3665	2322 705 70274	270kΩ 5% 0402
3666	4822 051 30101	100Ω 5% 0.062W
3668▲	4822 052 11102	1kΩ 5% 0.5W
3669	2322 706 71204	120kΩ 5% 0402
3671	2322 706 71003	10kΩ 5% 0402
3673▲	4822 052 11102	1kΩ 5% 0.5W
3675	2322 702 60158	1.5Ω
3676	2322 706 74702	4.7kΩ 5% 0402
3677	2322 706 74703	47kΩ 1% 0402
3678	3198 031 04730	47Ω 5% 0402
3680	4822 117 13579	220kΩ 1% 0.1W 0805
3681	4822 117 13579	220kΩ 1% 0.1W 0805
3682	4822 117 13579	220kΩ 1% 0.1W 0805
3683	4822 051 20334	330kΩ 5% 0.1W
3684	4822 051 20334	330kΩ 5% 0.1W
3685	4822 051 20334	330kΩ 5% 0.1W
3690	3198 031 03920	3.9kΩ 5% 0402
3691	3198 031 08220	8.2kΩ 5% 0.5W
3692	4822 117 13606	10kΩ 5% 0.01W 0402
3693	4822 117 13602	2.2kΩ 5% 0.01W 0402
3806	4822 117 13543	470Ω 5% 0402
3807	4822 117 13606	10kΩ 5% 0.01W 0402
3808	4822 117 13606	10kΩ 5% 0.01W 0402
3809	3198 031 02730	27kΩ 5% 0402
3811	4822 117 13545	100Ω 1% 0402
3999	4822 117 13548	1kΩ 5% 0402
9001	4822 051 20008	Jumper 0805
9003	4822 051 20008	Jumper 0805
9004	4822 117 13605	Jumper 0402
9020	4822 051 20008	Jumper 0805
9021	4822 051 20008	Jumper 0805

9022	4822 051 20008	Jumper 0805
9028	4822 117 13605	Jumper 0402

5001	2422 531 02444	Transf. S13932-04Y
5002⚠	3104 308 21022	Transf. BS42315-02
5004⚠	3104 308 21022	Transf. BS42315-02
5005⚠	3122 138 38901	Mains filter CU28D3
5121	3104 308 20771	Bridge coil BD21232-00
5220	3104 308 20911	Transf. BS29238-00
5225	2422 536 00672	4.7µH 20%
5229	2422 536 00826	220µH 10%
5290	3104 308 21171	transf. BD15403-00
5291	4822 157 11737	22µH 10%
5292	4822 157 11737	22µH 10%
5293	4822 157 11737	22µH 10%
5401⚠	3122 138 38901	Mains filter CU28D3
5402⚠	3122 138 38901	Mains filter CU28D3
5500⚠	2422 531 00075	Transf. BS16421-00
5503	4822 157 11737	22µH 10%
5600	3104 308 20821	Coil BS42228-00 B
5601	4822 157 11411	Bead 80Ω at 100MHz
5612	4822 157 11411	Bead 80Ω at 100MHz
5660	4822 157 51192	220µH 10%

6002	4822 130 11397	BAS316
6003	9340 548 71115	PDZ33B
6004	4822 130 11397	BAS316
6005	4822 130 11397	BAS316
6006	4822 130 11397	BAS316
6007	4822 130 11397	BAS316
6008	4822 130 11397	BAS316
6009	4822 130 11397	BAS316
6010	4822 130 11397	BAS316
6011	4822 130 11397	BAS316
6012	3198 020 55680	BZX384-C5V6
6018	4822 130 11397	BAS316
6019	4822 130 11397	BAS316
6021	4822 130 32961	BYV28-200
6023	4822 130 11397	BAS316
6027	4822 130 11397	BAS316
6028	4822 130 11397	BAS316
6029	4822 130 11416	PDZ6.8B
6031	3198 020 55680	BZX384-C5V6
6032	3198 020 55680	BZX384-C5V6
6033	9322 150 18685	BZX384-C47
6034	4822 130 11397	BAS316
6035	4822 130 11397	BAS316
6042	9322 150 18685	BZX384-C47
6044	9322 202 88687	STTH2003CFP
6045	4822 130 32961	BYV28-200
6050	4822 130 11152	UDZ18B
6054	9340 553 52115	BAS321
6055	9340 553 52115	BAS321
6061	4822 130 11152	UDZ18B
6062	4822 130 11152	UDZ18B
6075	9340 292 80135	BZG03-C270
6077	9340 292 80135	BZG03-C270
6086	4822 130 11397	BAS316
6111	4822 130 11397	BAS316
6112	4822 130 11397	BAS316
6113	4822 130 11397	BAS316
6114	4822 130 11416	PDZ6.8B
6117	4822 130 11152	UDZ18B
6120	9322 202 75687	BYW29FP-200
6123	4822 130 11397	BAS316
6133	4822 130 11397	BAS316
6142	9322 192 15668	SM S3J
6201	3198 020 55680	BZX384-C5V6
6202	4822 130 11397	BAS316
6204	3198 020 55680	BZX384-C5V6
6205	4822 130 11152	UDZ18B
6206	4822 130 11397	BAS316
6211	9322 202 55685	BYG22D
6213	4822 130 11397	BAS316
6216	4822 130 11152	UDZ18B
6225	9322 173 47687	STPS20L40CFP
6230	9322 155 79685	EC31QS04
6267	4822 130 82627	SB540
6268	9322 128 70685	SMSS14
6269	9322 099 61685	BYG10J
6270	9322 099 61685	BYG10J
6291	4822 130 11572	STPS8H100F
6292	4822 130 11572	STPS8H100F
6312	4822 130 80622	BAT54
6313	4822 130 80622	BAT54
6321	4822 130 80622	BAT54
6322	4822 130 80622	BAT54
6325	4822 130 11416	PDZ6.8B
6333	4822 130 80622	BAT54
6334	4822 130 80622	BAT54
6335	4822 130 11397	BAS316
6340	4822 130 80622	BAT54
6341	4822 130 80622	BAT54
6347	4822 130 80622	BAT54
6362	4822 130 11397	BAS316
6364	4822 130 11397	BAS316
6365	4822 130 11397	BAS316
6366	4822 130 11397	BAS316
6375	4822 130 11397	BAS316
6376	4822 130 11397	BAS316
6378	4822 130 80622	BAT54
6460	4822 130 11397	BAS316
6461	4822 130 11397	BAS316
6470	4822 130 11397	BAS316
6471	4822 130 11397	BAS316
6501	9322 218 64673	BZT03C200
6502	9322 218 64673	BZT03C200
6503	9322 176 76668	RS1J
6504	9322 176 76668	RS1J
6505	9322 155 79685	EC31QS04
6506	9322 218 64673	BZT03C200
6510	9322 099 61685	BYG10J
6511	9322 099 61685	BYG10J
6512	9322 099 61685	BYG10J
6513	9322 099 61685	BYG10J
6600	9322 177 84667	GBU8JL-7014
6601	9322 150 17685	BZX384-C39
6602	4822 130 11522	UDZ15B
6605	9322 192 15668	SM S3J
6606	9322 192 15668	SM S3J
6608	9322 128 70685	SMSS14
6609	9322 208 81685	BZG05C18
6611	3139 120 52021	BYV29X-500
6640	9322 128 70685	SMSS14
6641	4822 130 11397	BAS316
6642	9322 128 70685	SMSS14
6643	4822 130 11152	UDZ18B
6651	4822 130 80622	BAT54
6652	9322 128 70685	SMSS14
6653	4822 130 10837	UDZS8.2B
6654	4822 130 11397	BAS316
6660	9322 202 55685	BYG22D
6661	9322 202 55685	BYG22D
6663	9322 198 81685	SL04
6665	9322 198 81685	SL04
6666	4822 130 10837	UDZS8.2B

7001	9322 108 21682	MC34067P
7002⚠	9322 149 04682	TCET1102
7003⚠	9322 149 04682	TCET1102
7004	9322 192 17685	P0102BL
7005	9322 192 18687	STP15NK50ZFP
7006	9322 192 18687	STP15NK50ZFP
7007	4822 130 41246	BC327-25
7008	4822 130 41246	BC327-25
7009	3198 010 42310	BC847BW
7010	9322 192 16685	TS2431AI
7011	9322 192 16685	TS2431AI
7012	3198 010 42310	BC847BW
7013	5322 130 63033	BCP56
7017	3198 010 42320	BC857BW
7018	3198 010 42310	BC847BW
7020	9335 671 30126	BC517
7021	9335 671 30126	BC517
7042	9340 308 50135	PMST5401
7050	9340 557 16127	PSMN035-150P
7052	9340 557 58118	PSMN063-150D
7058	3198 010 42310	BC847BW
7059	9340 308 60135	PMST5550
7090	3198 010 42320	BC857BW
7091	3198 010 42320	BC857BW
7092	3198 010 44350	BC807-25W
7093	4822 209 80591	LM317T
7110	9340 308 50135	PMST5401
7112	9352 673 56112	TEA1507P/N1
7117	9340 557 17118	PSMN035-150B
7120⚠	9322 149 04682	TCET1102
7121	9322 192 16685	TS2431AI
7130	9322 192 16685	TS2431AI
7134	3198 010 42310	BC847BW
7200	9340 565 06215	BSH114
7202	9965 000 04199	BSN20
7212	9352 673 56112	TEA1507P/N1
7217	9340 557 18127	PSMN070-200P
7220⚠	9322 149 04682	TCET1102
7227	9322 192 16685	TS2431AI
7230	9322 205 64687	L4940P85
7260	9322 166 31682	L4973V3.3
7304	9322 192 16685	TS2431AI
7308	9322 213 35668	LM339P
7326	3198 010 42310	BC847BW
7327	3198 010 42310	BC847BW
7330	9322 213 35668	LM339P
7341	3198 010 42320	BC857BW
7348	3198 010 42310	BC847BW
7351	3198 010 42310	BC847BW
7352	3198 010 42310	BC847BW
7362	3198 010 42310	BC847BW
7366	9322 213 19668	LM324APW
7375	3198 010 42310	BC847BW
7376	3198 010 42310	BC847BW
7391	3198 010 42320	BC857BW
7460	9340 219 30115	BC817-25W
7461	4822 130 60142	BC869
7465	3198 010 42320	BC857BW
7470	9340 219 30115	BC817-25W
7500	9322 037 99682	TNY256P
7501⚠	9322 149 04682	TCET1102
7502	9322 192 16685	TS2431AI
7540	4822 209 17398	LD1117DT33
7601	3198 010 42310	BC847BW
7602	3198 010 42320	BC857BW
7608	5322 130 44593	BC369
7610	9322 223 21687	STW29NK50Z
7640	9965 000 04199	BSN20
7641	9340 219 30115	BC817-25W
7650	9322 130 69682	MC33368P
7654	3198 010 42320	BC857BW
7655	3198 010 42310	BC847BW
7656	3198 010 42310	BC847BW
7661	5322 209 90529	MC34063AD

Ambi Light Inverter Panel [AL]

Various

0615	3104 317 09401	SW (see Prod. Survey)
1002	2422 025 09406	Connector 4p m
1003	2422 025 10768	Connector 3p m
1006	2422 025 12485	Connector 11p m
1007	2422 025 12485	Connector 11p m
1008	4822 267 10735	Connector 3p
1009	4822 267 10735	Connector 3p
1010	2422 086 00657	Fuse 3A 125V F SMD
1050	2422 543 01431	Xtal 20MHz 16pF
1M08	2422 025 09406	Connector 4p m
1M10	2422 025 09406	Connector 4p m
1M11	2422 025 12485	Connector 11p m
1M11	2422 025 19068	Connector 11p m
1M12	2422 025 19069	Connector 3p m
1M12	4822 267 10735	Connector 3p
1M13	2422 025 12485	Connector 11p m
1M14	4822 267 10735	Connector 3p
1M48	2422 025 10768	Connector 3p m
1M49	2422 025 18884	Connector 4p m

2001	2020 012 00018	1000µF 20% 16V
2002	2238 586 59812	100nF 20% 50V 0603
2003	2020 552 96618	1nF 10% 50V 0402
2004	2020 552 96618	1nF 10% 50V 0402
2005	3198 034 01590	15pF 1% 50V 0402
2006	3198 034 01590	15pF 1% 50V 0402
2007	4822 126 14238	2.2nF 50V 0603
2008	4822 126 14238	2.2nF 50V 0603
2009	4822 126 14238	2.2nF 50V 0603
2010	4822 126 14238	2.2nF 50V 0603
2011	4822 126 14238	2.2nF 50V 0603
2012	4822 126 14238	2.2nF 50V 0603
2013	5322 121 42498	680nF 5% 63V
2014	5322 121 42498	680nF 5% 63V
2015	5322 121 42498	680nF 5% 63V
2016	5322 121 42498	680nF 5% 63V
2017	5322 121 42498	680nF 5% 63V
2018	5322 121 42498	680nF 5% 63V
2020	2238 580 15645	47nF 10% 50V 0805
2021	2020 552 96683	220nF 10% 50V
2021	2238 580 15645	47nF 10% 50V 0805
2023	2020 552 96683	220nF 10% 50V
2024	2020 552 96683	220nF 10% 50V
2030	2020 552 96683	220nF 10% 50V
2030	2238 580 15645	47nF 10% 50V 0805
2032	2020 552 96683	220nF 10% 50V
2032	2238 580 15645	47nF 10% 50V 0805
2033	2020 552 96683	220nF 10% 50V
2040	2020 552 96683	220nF 10% 50V
2040	2238 580 15645	47nF 10% 50V 0805
2042	2238 580 15645	47nF 10% 50V 0805
2043	2020 552 96683	220nF 10% 50V

2045	2020 552 96683	220nF 10% 50V
2050	2020 552 96683	220nF 10% 50V
2050	2238 580 15645	47nF 10% 50V 0805
2052	2020 552 96683	220nF 10% 50V
2052	2238 580 15645	47nF 10% 50V 0805
2055	2020 552 96683	220nF 10% 50V
2060	2020 552 96683	220nF 10% 50V
2060	2238 580 15645	47nF 10% 50V 0805
2062	2020 552 96683	220nF 10% 50V
2062	2238 580 15645	47nF 10% 50V 0805
2064	2020 552 96683	220nF 10% 50V
2070	2238 580 15645	47nF 10% 50V 0805
2071	2020 552 96683	220nF 10% 50V
2071	2238 580 15645	47nF 10% 50V 0805
2074	2020 552 96683	220nF 10% 50V
2075	2020 552 96683	220nF 10% 50V

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3001	4822 117 13545	100Ω 1% 0402
3002	4822 117 13545	100Ω 1% 0402
3003	4822 117 13596	220Ω 5% 0.01W 0402
3004	4822 051 20471	470Ω 5% 0.1W
3004	4822 117 11503	220Ω 1% 0.1W
3005	4822 051 20561	560Ω 5% 0.1W
3005	4822 117 11504	270Ω 1% 0.1W
3006	2322 762 60102	1kΩ 5% 2512
3007	2322 762 60102	1kΩ 5% 2512
3008	4822 051 20471	470Ω 5% 0.1W
3008	4822 117 11503	220Ω 1% 0.1W
3009	4822 051 20561	560Ω 5% 0.1W
3009	4822 117 11504	270Ω 1% 0.1W
3010	2322 762 60102	1kΩ 5% 2512
3011	2322 762 60102	1kΩ 5% 2512
3012	4822 051 20471	470Ω 5% 0.1W
3012	4822 117 11503	220Ω 1% 0.1W
3013	4822 051 20561	560Ω 5% 0.1W
3013	4822 117 11504	270Ω 1% 0.1W
3014	2322 762 60102	1kΩ 5% 2512
3015	2322 762 60102	1kΩ 5% 2512
3016	3198 031 04720	4.7kΩ 5% 0402
3017	3198 031 04720	4.7kΩ 5% 0402
3018	3198 031 04720	4.7kΩ 5% 0402
3018	4822 117 13606	10kΩ 5% 0.01W 0402
3019	3198 031 04720	4.7kΩ 5% 0402
3019	4822 117 13606	10kΩ 5% 0.01W 0402
3020	3198 031 04720	4.7kΩ 5% 0402
3020	4822 117 13606	10kΩ 5% 0.01W 0402
3022	4822 117 13545	100Ω 1% 0402
3023	4822 117 13545	100Ω 1% 0402
3024	3198 031 04720	4.7kΩ 5% 0402
3025	3198 031 04720	4.7kΩ 5% 0402
3026	4822 052 10102	1kΩ 5% 0.33W
3028	4822 117 13606	10kΩ 5% 0.01W 0402
3029	3198 031 04720	4.7kΩ 5% 0402
3030	3198 031 04720	4.7kΩ 5% 0402
3031	3198 031 04720	4.7kΩ 5% 0402
3042	4822 053 20105	1MΩ 5% 0.25W
3999	4822 051 30102	1kΩ 5% 0.062W
3999	4822 051 30103	10kΩ 5% 0.062W

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5002	2422 536 00923	22µH 10% LHL10
5004	3104 308 21271	Transf. BD21416-00
5005	3104 308 21271	Transf. BD21416-00
5006	3104 308 21271	Transf. BD21416-00
5007	2422 536 00923	22µH 10% LHL10
5008	2422 536 00923	22µH 10% LHL10
5014	3104 308 21271	Transf. BD21416-00
5015	3104 308 21271	Transf. BD21416-00
5016	3104 308 21271	Transf. BD21416-00

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6000	4822 130 11397	BAS316
6001	4822 130 11397	BAS316
6002	4822 130 11397	BAS316
6003	4822 130 11397	BAS316
6004	4822 130 11397	BAS316
6005	4822 130 11397	BAS316
6006	4822 130 11152	UDZ18B
6007	4822 130 11152	UDZ18B
6008	4822 130 11152	UDZ18B
6009	4822 130 11152	UDZ18B
6010	4822 130 11152	UDZ18B
6011	4822 130 11152	UDZ18B

7001		For SW see item 0615
7002	9322 202 58668	LD1117DT50
7009	3198 010 42310	BC847BW
7010	3198 010 42310	BC847BW
7011	3198 010 42310	BC847BW
7015	9322 214 20668	SI4946EY
7016	9322 214 20668	SI4946EY
7017	9322 214 20668	SI4946EY
7018	3198 010 42310	BC847BW
7019	3198 010 42310	BC847BW
7020	3198 010 42310	BC847BW

Small Signal Board [B]

Various

0601	3104 317 07761	SW (see Prod. Survey)
0602	3104 317 09821	SW (see Prod. Survey)
0603	3104 317 06611	SW (see Prod. Survey)
0605	3104 317 47621	SW (see Prod. Survey)
1000⚠	2422 086 11092	Fuse 500mA 50V F SMD
1001	2422 543 01497	Xtal 6Mhz 20pF
1001	2422 543 89022	Xtal 6MHz 20p
1062	2422 549 00148	Socket 3p m
1305	2422 543 01184	Xtal 4.433619MHz 20pF
1305	2422 543 01488	Xtal 4.433619Mhz 20pF
1308	2422 543 01183	Xtal 3.579545MHz 16pF
1308	2422 543 01486	Xtal 3.579545Mhz 16pF
1404	2422 127 00543	Switch 1p 2pos
1406	2422 549 00458	Filter 5M5/5M74
1407	2422 549 00504	Filter 4.5MHz TPSKA*R3
1407	2422 549 44043	Filt. 4.5MHz TPSCC*MB
1408	2422 549 44373	SAW 38MHz K3955L
1409	2422 549 44374	SAW 38MHz K9352L
1409	2422 549 44389	SAW 38.9MHz K9361L
1410	2422 549 44376	SAW 38MHz M3956L
1410	2422 549 44388	SAW 38.9MHz K7265L
1702	2422 540 98456	Resonator 12MHz
1703	2422 540 00002	Resonator CSTCE*G52
1A00	2422 543 89019	Xtal 18.432MHz 12p
1A01	2422 543 01059	Resonator 18MHz 12p
1D01	2422 033 00018	Connector 19p f
1E02	2422 025 17274	Connector 10p m
1E04	2422 025 17103	Conn. 3p m SMD
1E04	2422 025 18738	Conn. 3p m SMD no-Pb
1G50	2422 025 18427	Connector 31p f
1I01	2422 026 05525	Socket 6p f
1I02	2422 026 05622	Socket 2p f
1I04	2422 026 05525	Socket 6p f
1I06	2422 026 05526	Socket 4p f
1I07	2422 026 05054	Socket Cinch 2p f WhRd
1I09	2422 026 05054	Socket Cinch 2p f WhRd
1I09	2422 026 05539	Socket Cinch 2p f WhRd
1I10	2422 026 05081	Connector 8p f
1I53⚠	2422 549 00146	Line filter 20V 3A
1I56⚠	2422 549 00146	Line filter 20V 3A
1I57⚠	2422 549 00146	Line filter 20V 3A
1I59⚠	2422 549 00146	Line filter 20V 3A
1M01	2422 025 10768	Connector 3p m
1M03	2422 025 10771	Connector 10p m
1M15	4822 267 10748	Connector 3p
1M20	2422 025 10772	Connector 12p m
1M46	2422 025 10655	Connector 11p m
1M49	2422 025 10768	Connector 3p m
1M51	2422 025 09406	Connector 4p m
1M51	2422 025 18884	Connector 4p m
1M52	2422 025 10769	Connector 9p m
1P00	2422 543 01184	Xtal 4.433619MHz 20p
1P00	2422 543 01488	Xtal 4.433619Mhz 20pF
1P03	2422 543 01183	Xtal 3.579545MHz 16p
1P03	2422 543 01486	Xtal 3.579545Mhz 16pF
1P04	2422 549 44374	SAW 38MHz K9352L
1P04	2422 549 44389	SAW 38.9MHz K9361L
1P05	2422 549 44376	SAW 38MHz M3956L
1P05	2422 549 44388	SAW 38.9MHz K7265L
1P06	2422 549 44373	SAW 38MHz K3955L
1P08	2422 549 00458	Filter 5M5/5M74
1P09	2422 549 00504	Filter 4.5MHz TPSKA*R3
1P09	2422 549 44043	Filt. 4.5MHz TPSCC*MB
1P10	2422 549 44617	Filt. 6.5MHz SFSR*MDQ
1P10	4822 242 81299	Filter 6.5 MHz
1P11	2422 549 44615	Filt. 5.5MHz SFSR*MDQ
1P11	4822 242 10314	Filter 5.5 MHz
1P12	2422 549 44616	Filter 6MHz SFSR*MDQ
1P12	4822 242 81265	Filter 6.0 MHz
1T01	2422 542 00004	Tuner TEDE9-715A
1T01	2422 542 00005	Tuner TEDE9-716A
1T02	2422 542 00002	Tuner TEDE9-285A
1T02	2422 542 00003	Tuner TEDE9-286A
1T02	3139 147 22121	Tuner UV1318S/AICH
1U01⚠	2422 086 11112	Fuse 1A T 125V
8192	3104 311 07711	Wire phono M/170/IEC
8220	3104 311 07291	Cable 12p/820/12p
8220	3104 311 08631	Cable12p/480/12p
8303	3104 311 06701	Cable 10p/480/10p
8321	3104 311 08731	Cable POSI/100/POSI
8336	3104 311 03891	Cable 11p/340/11p
8346	3104 311 08031	Cable 11p/480/11p
8346	3104 311 08161	Cable 11p/480/11p
8349	3104 311 08781	Cable 3p/1000/3p
8349	3104 311 10631	Cable 4p/1000/4p
8352	3104 311 07941	Cable 9p/820/9p
8352	3104 311 08661	Cable 9p/720/9p
8352	3104 311 10161	Cable 9p/1000/9p
8436	3104 311 07951	Cable 11p/680/11p

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2002	3198 034 02790	47pF 1% 50V 0402
2003	2238 780 15654	220nF 10% 16V 0805
2004	2238 780 15654	220nF 10% 16V 0805
2005	2238 586 59812	100nF 20% 50V 0603
2006	2238 586 59812	100nF 20% 50V 0603
2007	2238 586 59812	100nF 20% 50V 0603
2008	2238 586 59812	100nF 20% 50V 0603
2013	2020 021 91557	100µF 20% 16V
2016	4822 124 12095	100µF 20% 16V
2017	2238 586 59812	100nF 20% 50V 0603
2018	4822 126 14324	33pF 5% 50V 0402
2019	2238 586 59812	100nF 20% 50V 0603
2020	2238 869 15221	220pF 1% 50V 0402
2020	3198 035 02210	220pF 5% 50V 0402
2022	2238 586 59812	100nF 20% 50V 0603
2023	2238 586 59812	100nF 20% 50V 0603
2024	2238 586 59812	100nF 20% 50V 0603
2025	2238 586 59812	100nF 20% 50V 0603
2026	2238 586 59812	100nF 20% 50V 0603
2027	2238 586 59812	100nF 20% 50V 0603
2028	2238 586 59812	100nF 20% 50V 0603
2029	2238 586 59812	100nF 20% 50V 0603
2031	2238 586 59812	100nF 20% 50V 0603
2033	2238 869 15829	82pF 5% 50V 0402
2034	2238 869 15829	82pF 5% 50V 0402
2035	2238 869 15829	82pF 5% 50V 0402
2036	2238 869 15829	82pF 5% 50V 0402
2037	2238 869 15829	82pF 5% 50V 0402
2038	2238 586 59812	100nF 20% 50V 0603
2039	2238 586 59812	100nF 20% 50V 0603
2040	2238 586 59812	100nF 20% 50V 0603
2067	2238 586 59812	100nF 20% 50V 0603
2072	2238 586 59812	100nF 20% 50V 0603
2073	3198 017 44740	470nF 10V 0603
2074	2238 586 59812	100nF 20% 50V 0603
2075	2238 586 59812	100nF 20% 50V 0603
2305	2238 586 59812	100nF 20% 50V 0603
2316	2238 586 59812	100nF 20% 50V 0603
2322	2238 586 59812	100nF 20% 50V 0603
2350	2238 586 59812	100nF 20% 50V 0603
2351	2238 586 59812	100nF 20% 50V 0603
2352	2238 586 59812	100nF 20% 50V 0603
2356	2238 586 59812	100nF 20% 50V 0603
2357	2238 586 59812	100nF 20% 50V 0603
2358	3198 035 03320	3.3nF 5% 50V 0402
2359	3198 034 01590	15pF 1% 50V 0402
2360	3198 034 01280	1.2pF 1% 50V 0402
2360	3198 034 01580	1.5pF 1% 50V 0402
2361	3198 034 01280	1.2pF 1% 50V 0402
2362	2238 869 15109	10pF 5% 50V 0402
2362	3198 034 01290	12pF 1% 50V 0402
2365	2238 586 59812	100nF 20% 50V 0603
2366	2238 586 59812	100nF 20% 50V 0603
2367	2238 586 59812	100nF 20% 50V 0603
2368	2238 586 59812	100nF 20% 50V 0603
2369	2238 586 59812	100nF 20% 50V 0603
2370	2238 586 59812	100nF 20% 50V 0603
2371	3198 035 14720	4.7nF 5% 25V 0402
2372	2022 552 05679	1µF 10% 16V 0805
2373	2238 586 59812	100nF 20% 50V 0603
2374	2022 552 05679	1µF 10% 16V 0805
2375	2238 787 15641	22nF 5% 16V 0402
2376	2238 586 59812	100nF 20% 50V 0603
2377	2020 021 91557	100µF 20% 16V
2378	2238 586 59812	100nF 20% 50V 0603
2384	2238 586 59812	100nF 20% 50V 0603
2387	2022 552 05679	1µF 10% 16V 0805
2391	2238 586 59812	100nF 20% 50V 0603
2392	2022 552 05679	1µF 10% 16V 0805
2394	2022 552 05679	1µF 10% 16V 0805
2403	2238 586 59812	100nF 20% 50V 0603
2404	2022 552 05679	1µF 10% 16V 0805
2405	3198 035 14720	4.7nF 5% 25V 0402
2406	2238 869 15221	220pF 1% 50V 0402
2409	2022 552 05679	1µF 10% 16V 0805
2410	2020 021 91557	100µF 20% 16V
2411	2238 586 59812	100nF 20% 50V 0603
2412	3198 035 14720	4.7nF 5% 25V 0402

2416	2022 552 05679	1µF 10% 16V 0805
2417	4822 126 14583	470nF 10% 16V 0805
2418	3198 034 05680	5.6pF 1% 50V 0402
2418	3198 034 08280	8.2pF 50V
2425	2020 021 91557	100µF 20% 16V
2430	4822 126 14324	33pF 5% 50V 0402
2432	2238 586 59812	100nF 20% 50V 0603
2433	2238 586 59812	100nF 20% 50V 0603
2434	2238 586 59812	100nF 20% 50V 0603
2435	2020 552 96618	1nF 10% 50V 0402
2707	3198 034 02790	47pF 1% 50V 0402
2709	2238 586 59812	100nF 20% 50V 0603
2710	2238 586 59812	100nF 20% 50V 0603
2711	2238 586 59812	100nF 20% 50V 0603
2712	2238 586 59812	100nF 20% 50V 0603
2716	2238 586 59812	100nF 20% 50V 0603
2717	2238 586 59812	100nF 20% 50V 0603
2718	3198 034 01590	15pF 1% 50V 0402
2719	3198 034 01590	15pF 1% 50V 0402
2720	3198 034 01590	15pF 1% 50V 0402
2721	2238 869 15101	100pF 5% 50V 0402
2722	2238 869 15101	100pF 5% 50V 0402
2723	2238 586 59812	100nF 20% 50V 0603
2725	2238 586 59812	100nF 20% 50V 0603
2726	2238 586 59812	100nF 20% 50V 0603
2727	2238 586 59812	100nF 20% 50V 0603
2728	2020 021 91854	10µF 20% 16V
2729	2238 586 59812	100nF 20% 50V 0603
2730	2020 021 91557	100µF 20% 16V
2731	2238 586 59812	100nF 20% 50V 0603
2732	2020 552 96618	1nF 10% 50V 0402
2733	2238 586 59812	100nF 20% 50V 0603
2734	2238 586 59812	100nF 20% 50V 0603
2735	2238 586 59812	100nF 20% 50V 0603
2736	2238 586 59812	100nF 20% 50V 0603
2738	2238 586 59812	100nF 20% 50V 0603
2739	2020 021 91557	100µF 20% 16V
2740	2238 787 15641	22nF 5% 16V 0402
2741	2238 787 15641	22nF 5% 16V 0402
2742	2238 787 15641	22nF 5% 16V 0402
2743	2238 586 59812	100nF 20% 50V 0603
2744	2238 586 59812	100nF 20% 50V 0603
2745	2238 586 59812	100nF 20% 50V 0603
2746	2238 586 59812	100nF 20% 50V 0603
2747	4822 126 14524	68pF 5% 50V 0402
2748	2238 586 59812	100nF 20% 50V 0603
2749	2238 586 59812	100nF 20% 50V 0603
2750	2020 552 96618	1nF 10% 50V 0402
2751	2020 552 96618	1nF 10% 50V 0402
2752	2020 552 96618	1nF 10% 50V 0402
2753	2020 552 96618	1nF 10% 50V 0402
2754	2020 552 96618	1nF 10% 50V 0402
2755	2020 552 96618	1nF 10% 50V 0402
2756	2020 552 96618	1nF 10% 50V 0402
2757	2238 787 15641	22nF 5% 16V 0402
2759	2020 552 96618	1nF 10% 50V 0402
2760	2238 787 15641	22nF 5% 16V 0402
2761	2238 787 15641	22nF 5% 16V 0402
2762	2238 787 15641	22nF 5% 16V 0402
2763	2238 787 15641	22nF 5% 16V 0402
2764	2238 787 15641	22nF 5% 16V 0402
2768	2238 787 15641	22nF 5% 16V 0402
2769	2020 552 96618	1nF 10% 50V 0402
2770	2020 552 96618	1nF 10% 50V 0402
2771	2020 552 96618	1nF 10% 50V 0402
2772	2238 787 15641	22nF 5% 16V 0402
2773	2020 552 96618	1nF 10% 50V 0402
2777	2020 552 96618	1nF 10% 50V 0402
2778	2020 552 96618	1nF 10% 50V 0402
2780	2020 552 96618	1nF 10% 50V 0402
2781	2020 552 96618	1nF 10% 50V 0402
2782	2020 552 96618	1nF 10% 50V 0402
2784	2238 787 15641	22nF 5% 16V 0402
2785	2238 787 15641	22nF 5% 16V 0402
2788	2238 586 59812	100nF 20% 50V 0603
2789	2238 586 59812	100nF 20% 50V 0603
2790	2238 586 59812	100nF 20% 50V 0603
2791	2238 586 59812	100nF 20% 50V 0603
2792	2238 586 59812	100nF 20% 50V 0603
2793	2238 586 59812	100nF 20% 50V 0603
2794	2020 552 96618	1nF 10% 50V 0402
2795	2020 552 96618	1nF 10% 50V 0402
2796	2020 552 96618	1nF 10% 50V 0402
2797	2020 552 96618	1nF 10% 50V 0402
2798	2020 552 96618	1nF 10% 50V 0402
2799	2020 552 96618	1nF 10% 50V 0402
2800	2238 586 59812	100nF 20% 50V 0603
2802	2238 586 59812	100nF 20% 50V 0603
2804	2238 586 59812	100nF 20% 50V 0603
2805	2020 552 96618	1nF 10% 50V 0402
2806	2238 586 59812	100nF 20% 50V 0603
2807	2238 586 59812	100nF 20% 50V 0603
2808	2020 552 96618	1nF 10% 50V 0402
2809	2020 552 96618	1nF 10% 50V 0402
2810	2238 586 59812	100nF 20% 50V 0603
2811	2238 586 59812	100nF 20% 50V 0603
2812	3198 031 02290	22Ω 5% 0.1W 0402
2813	2238 586 59812	100nF 20% 50V 0603
2817	2238 586 59812	100nF 20% 50V 0603
2819	2238 586 59812	100nF 20% 50V 0603
2821	2238 787 15641	22nF 5% 16V 0402
2822	2238 787 15641	22nF 5% 16V 0402
2823	2238 586 59812	100nF 20% 50V 0603
2824	2238 586 59812	100nF 20% 50V 0603
2825	2238 586 59812	100nF 20% 50V 0603
2826	2238 586 59812	100nF 20% 50V 0603
2827	2238 586 59812	100nF 20% 50V 0603
2829	2020 021 91557	100µF 20% 16V
2830	2238 586 59812	100nF 20% 50V 0603
2831	2238 586 59812	100nF 20% 50V 0603
2832	2238 586 59812	100nF 20% 50V 0603
2833	2238 586 59812	100nF 20% 50V 0603
2834	2238 586 59812	100nF 20% 50V 0603
2835	2238 586 59812	100nF 20% 50V 0603
2836	2238 586 59812	100nF 20% 50V 0603
2837	2238 869 15101	100pF 5% 50V 0402
2838	2238 869 15101	100pF 5% 50V 0402
2843	2238 586 59812	100nF 20% 50V 0603
2844	2238 586 59812	100nF 20% 50V 0603
2845	2238 586 59812	100nF 20% 50V 0603
2846	2238 586 59812	100nF 20% 50V 0603
2848	2238 586 59812	100nF 20% 50V 0603
2849	2238 586 59812	100nF 20% 50V 0603
2850	2238 586 59812	100nF 20% 50V 0603
2851	2238 586 59812	100nF 20% 50V 0603
2852	2238 586 59812	100nF 20% 50V 0603
2853	2238 586 59812	100nF 20% 50V 0603
2854	2238 586 59812	100nF 20% 50V 0603
2855	2238 586 59812	100nF 20% 50V 0603
2856	2238 586 59812	100nF 20% 50V 0603
2857	2238 586 59812	100nF 20% 50V 0603
2858	2238 586 59812	100nF 20% 50V 0603
2859	2238 586 59812	100nF 20% 50V 0603
2860	2238 586 59812	100nF 20% 50V 0603
2861	2238 586 59812	100nF 20% 50V 0603
2862	2238 586 59812	100nF 20% 50V 0603
2863	2238 586 59812	100nF 20% 50V 0603
2864	2238 586 59812	100nF 20% 50V 0603
2865	2238 586 59812	100nF 20% 50V 0603
2866	2238 586 59812	100nF 20% 50V 0603
2867	2238 586 59812	100nF 20% 50V 0603
2868	2238 586 59812	100nF 20% 50V 0603
2869	2238 586 59812	100nF 20% 50V 0603
2870	2238 586 59812	100nF 20% 50V 0603
2871	2020 021 91557	100µF 20% 16V
2872	2238 586 59812	100nF 20% 50V 0603
2873	2238 586 59812	100nF 20% 50V 0603
2874	2238 586 59812	100nF 20% 50V 0603
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2876	2238 586 59812	100nF 20% 50V 0603
2877	2238 586 59812	100nF 20% 50V 0603
2878	2238 586 59812	100nF 20% 50V 0603
2879	2238 586 59812	100nF 20% 50V 0603
2880	2238 586 59812	100nF 20% 50V 0603
2881	3198 034 02790	47pF 1% 50V 0402
2882	2238 586 59812	100nF 20% 50V 0603
2883	2238 586 59812	100nF 20% 50V 0603
2884	2238 586 59812	100nF 20% 50V 0603
2885	2238 586 59812	100nF 20% 50V 0603
2886	2238 586 59812	100nF 20% 50V 0603
2887	2238 586 59812	100nF 20% 50V 0603
2888	2238 586 59812	100nF 20% 50V 0603
2889	2020 021 91557	100µF 20% 16V
2890	2238 586 59812	100nF 20% 50V 0603
2891	2238 586 59812	100nF 20% 50V 0603
2892	2238 586 59812	100nF 20% 50V 0603
2893	2238 586 59812	100nF 20% 50V 0603
2894	2238 586 59812	100nF 20% 50V 0603
2895	2020 021 91854	10µF 20% 16V
2898	2020 021 91854	10µF 20% 16V
2899	2238 586 59812	100nF 20% 50V 0603
2900	3198 034 04790	27pF 1% 50V 0402
2901	3198 034 04790	27pF 1% 50V 0402
2902	3198 034 04790	27pF 1% 50V 0402
2915	3198 034 01510	150pF 1% 50V 0402
2916	3198 034 01510	150pF 1% 50V 0402
2917	2238 586 59812	100nF 20% 50V 0603
2919	2020 021 91557	100µF 20% 16V
2920	2238 586 59812	100nF 20% 50V 0603
2921	2238 586 59812	100nF 20% 50V 0603
2922	2020 552 96628	10nF 10% 16V 0402
2923	2020 552 96628	10nF 10% 16V 0402
2924	2238 586 59812	100nF 20% 50V 0603
2931	3198 034 01510	150pF 1% 50V 0402
2932	2238 586 59812	100nF 20% 50V 0603
2933	2238 586 59812	100nF 20% 50V 0603
2937	2020 021 91557	100µF 20% 16V
2938	2020 021 91854	10µF 20% 16V
2939	2020 021 91557	100µF 20% 16V
2A00	2020 552 96618	1nF 10% 50V 0402
2A01	2020 552 96618	1nF 10% 50V 0402
2A02	2022 552 05679	1µF 10% 16V 0805
2A03	2020 021 91557	100µF 20% 16V
2A04	2022 552 05679	1µF 10% 16V 0805
2A05	2020 021 91557	100µF 20% 16V
2A06	2020 552 96618	1nF 10% 50V 0402
2A07	2020 552 96618	1nF 10% 50V 0402
2A08	2022 552 05679	1µF 10% 16V 0805
2A10	2238 586 59812	100nF 20% 50V 0603
2A11	2238 586 59812	100nF 20% 50V 0603
2A12	2238 586 59812	100nF 20% 50V 0603
2A13	2238 586 59812	100nF 20% 50V 0603
2A14	2020 552 96618	1nF 10% 50V 0402
2A15	2020 021 91557	100µF 20% 16V
2A16	2238 586 59812	100nF 20% 50V 0603
2A17	2020 552 96618	1nF 10% 50V 0402
2A18	2020 021 91557	100µF 20% 16V
2A19	3198 034 02790	47pF 1% 50V 0402
2A20	2022 552 05679	1µF 10% 16V 0805
2A21	2238 586 59812	100nF 20% 50V 0603
2A22	2238 586 59812	100nF 20% 50V 0603
2A23	2238 586 59812	100nF 20% 50V 0603
2A24	2238 586 59812	100nF 20% 50V 0603
2A25	2238 869 15101	100pF 5% 50V 0402
2A26	2022 552 05679	1µF 10% 16V 0805
2A27	2020 552 96618	1nF 10% 50V 0402
2A29	2238 869 15101	100pF 5% 50V 0402
2A30	2238 869 15101	100pF 5% 50V 0402
2A31	2022 552 05679	1µF 10% 16V 0805
2A32	2238 869 15101	100pF 5% 50V 0402
2A33	2238 586 59812	100nF 20% 50V 0603
2A34	2238 586 59812	100nF 20% 50V 0603
2A35	2020 552 96618	1nF 10% 50V 0402
2A36	2238 869 15101	100pF 5% 50V 0402
2A37	2238 869 15101	100pF 5% 50V 0402
2A38	2022 552 05679	1µF 10% 16V 0805
2A39	2022 552 05679	1µF 10% 16V 0805
2A40	2238 586 59812	100nF 20% 50V 0603
2A41	2020 021 91854	10µF 20% 16V
2A42	2020 021 91854	10µF 20% 16V
2A43	2020 021 91854	10µF 20% 16V
2A44	2238 586 59812	100nF 20% 50V 0603
2A45	2238 586 59812	100nF 20% 50V 0603
2A46	2022 552 05679	1µF 10% 16V 0805
2A47	2022 552 05679	1µF 10% 16V 0805
2A49	2022 552 05679	1µF 10% 16V 0805
2A50	2020 552 96618	1nF 10% 50V 0402
2A53	2022 552 05679	1µF 10% 16V 0805
2A54	2020 552 96618	1nF 10% 50V 0402
2A56	2022 552 05679	1µF 10% 16V 0805
2A59	2022 552 05679	1µF 10% 16V 0805
2A62	2022 552 05679	1µF 10% 16V 0805
2A64	2238 586 59812	100nF 20% 50V 0603
2A66	2022 552 05679	1µF 10% 16V 0805
2A69	2022 552 05679	1µF 10% 16V 0805
2A70	2022 552 05679	1µF 10% 16V 0805
2A72	2022 552 05679	1µF 10% 16V 0805
2A74	2022 552 05679	1µF 10% 16V 0805
2A75	2022 552 05679	1µF 10% 16V 0805
2A76	2238 586 59812	100nF 20% 50V 0603
2A79	2238 586 59812	100nF 20% 50V 0603
2A80	2022 552 05679	1µF 10% 16V 0805
2A81	2020 552 96618	1nF 10% 50V 0402
2A83	2238 586 59812	100nF 20% 50V 0603
2A88	2238 586 59812	100nF 20% 50V 0603
2A89	2022 552 05679	1µF 10% 16V 0805
2A90	4822 124 12313	22µF 10V 20%
2A91	2238 869 15101	100pF 5% 50V 0402
2A92	2022 552 05679	1µF 10% 16V 0805
2A95	2238 869 15221	220pF 1% 50V 0402
2A95	3198 035 02210	220pF 5% 50V 0402
2A99	2022 552 05679	1µF 10% 16V 0805
2AA5	2238 869 15101	100pF 5% 50V 0402
2AA6	2020 552 96618	1nF 10% 50V 0402
2AA7	2020 552 96618	1nF 10% 50V 0402
2AA9	3198 034 05680	5.6pF 1% 50V 0402
2AB0	3198 034 05680	5.6pF 1% 50V 0402
2AB2	2020 552 96618	1nF 10% 50V 0402
2AB3	2022 552 05679	1µF 10% 16V 0805
2AB4	2022 552 05679	1µF 10% 16V 0805
2AB5	2020 021 91854	10µF 20% 16V
2AB6	2020 552 96618	1nF 10% 50V 0402
2AB7	2020 552 96618	1nF 10% 50V 0402
2AB8	2022 552 05679	1µF 10% 16V 0805
2AF3	4822 124 12095	100µF 20% 16V
2AF4	2238 586 59812	100nF 20% 50V 0603
2C00	2238 586 59812	100nF 20% 50V 0603
2C01	2238 586 59812	100nF 20% 50V 0603
2C02	2238 586 59812	100nF 20% 50V 0603
2D04	2020 552 96618	1nF 10% 50V 0402
2D09	2238 586 59812	100nF 20% 50V 0603
2D10	2022 552 05679	1µF 10% 16V 0805

2D11	2020 552 96628	10nF 10% 16V 0402
2D12	2020 552 96628	10nF 10% 16V 0402
2E01	2238 586 59812	100nF 20% 50V 0603
2E02	2238 586 59812	100nF 20% 50V 0603
2E03	2238 586 59812	100nF 20% 50V 0603
2E04	2238 586 59812	100nF 20% 50V 0603
2E06	2238 586 59812	100nF 20% 50V 0603
2E07	2238 586 59812	100nF 20% 50V 0603
2E08	2238 586 59812	100nF 20% 50V 0603
2E09	2238 586 59812	100nF 20% 50V 0603
2E10	2238 586 59812	100nF 20% 50V 0603
2E11	2238 586 59812	100nF 20% 50V 0603
2E12	2238 586 59812	100nF 20% 50V 0603
2E13	2238 586 59812	100nF 20% 50V 0603
2E14	2238 586 59812	100nF 20% 50V 0603
2E15	2238 586 59812	100nF 20% 50V 0603
2E16	2238 586 59812	100nF 20% 50V 0603
2E17	2238 586 59812	100nF 20% 50V 0603
2E18	2238 586 59812	100nF 20% 50V 0603
2E19	2238 586 59812	100nF 20% 50V 0603
2E20	2238 586 59812	100nF 20% 50V 0603
2E21	3198 017 34730	47nF 16V 0603
2E22	4822 126 14519	22pF 5% 50V 0402
2E23	3198 017 34730	47nF 16V 0603
2E24	4822 126 14519	22pF 5% 50V 0402
2E25	3198 017 34730	47nF 16V 0603
2E26	4822 126 14519	22pF 5% 50V 0402
2E27	2238 586 59812	100nF 20% 50V 0603
2E28	3198 017 34730	47nF 16V 0603
2E29	3198 017 33330	33nF 20% 16V 0603
2E34	3198 035 03320	3.3nF 5% 50V 0402
2E35	2238 586 59812	100nF 20% 50V 0603
2E39	2238 869 15109	10pF 5% 50V 0402
2E41	2238 586 59812	100nF 20% 50V 0603
2E42	2020 552 96628	10nF 10% 16V 0402
2E43	2238 586 59812	100nF 20% 50V 0603
2E49	2238 586 59812	100nF 20% 50V 0603
2E50	4822 124 81058	47µF 20% 4V
2E51	2022 552 05679	1µF 10% 16V 0805
2E52	2238 586 59812	100nF 20% 50V 0603
2E54	2238 586 59812	100nF 20% 50V 0603
2E55	2022 552 05679	1µF 10% 16V 0805
2E56	2020 552 96628	10nF 10% 16V 0402
2E57	2020 552 96628	10nF 10% 16V 0402
2E58	2020 552 96628	10nF 10% 16V 0402
2E59	2020 552 96628	10nF 10% 16V 0402
2E62	2238 586 59812	100nF 20% 50V 0603
2E65	2238 586 59812	100nF 20% 50V 0603
2E66	2238 586 59812	100nF 20% 50V 0603
2E67	2238 586 59812	100nF 20% 50V 0603
2E68	2020 552 96628	10nF 10% 16V 0402
2E69	2020 552 96628	10nF 10% 16V 0402
2E70	2020 552 96628	10nF 10% 16V 0402
2E71	2020 552 96628	10nF 10% 16V 0402
2E72	2238 586 59812	100nF 20% 50V 0603
2E73	2238 586 59812	100nF 20% 50V 0603
2E74	2238 586 59812	100nF 20% 50V 0603
2E75	2238 586 59812	100nF 20% 50V 0603
2E77	2238 586 59812	100nF 20% 50V 0603
2E78	2238 586 59812	100nF 20% 50V 0603
2E79	2238 586 59812	100nF 20% 50V 0603
2E80	2238 586 59812	100nF 20% 50V 0603
2E81	2022 552 05679	1µF 10% 16V 0805
2E82	2238 586 59812	100nF 20% 50V 0603
2E83	2238 586 59812	100nF 20% 50V 0603
2E84	2238 586 59812	100nF 20% 50V 0603
2E86	2238 586 59812	100nF 20% 50V 0603
2E87	4822 124 12095	100µF 20% 16V
2E93	2238 586 59812	100nF 20% 50V 0603
2E94	2238 586 59812	100nF 20% 50V 0603
2E96	2238 869 15101	100pF 5% 50V 0402
2E97	2238 869 15101	100pF 5% 50V 0402
2E98	2238 869 15101	100pF 5% 50V 0402
2E99	4822 124 81058	47µF 20% 4V
2I00	2238 869 15101	100pF 5% 50V 0402
2I11	2022 552 05679	1µF 10% 16V 0805
2I12	4822 126 14585	100nF 10% 0805 50V
2I13	2020 552 96631	15nF 10% 16V 0402
2I14	2020 552 96623	2.2nF 10% 50V 0402
2I15	2022 552 05679	1µF 10% 16V 0805
2I18	2238 869 15101	100pF 5% 50V 0402
2I19	2238 869 15101	100pF 5% 50V 0402
2I21	2238 869 15101	100pF 5% 50V 0402
2I22	2238 869 15101	100pF 5% 50V 0402
2I23	2238 869 15101	100pF 5% 50V 0402
2I24	2238 869 15101	100pF 5% 50V 0402
2I26	2238 869 15101	100pF 5% 50V 0402
2I27	2238 869 15101	100pF 5% 50V 0402
2I30	2238 869 15101	100pF 5% 50V 0402
2I32	4822 124 23002	10µF 16V
2I35	2022 552 05679	1µF 10% 16V 0805
2I36	2238 869 15101	100pF 5% 50V 0402
2I38	2238 869 15101	100pF 5% 50V 0402
2I41	2022 552 05679	1µF 10% 16V 0805
2I43	2022 552 05679	1µF 10% 16V 0805
2I44	2238 586 59812	100nF 20% 50V 0603
2I45	2238 586 59812	100nF 20% 50V 0603
2I46	2020 552 96618	1nF 10% 50V 0402
2I47	2020 552 96618	1nF 10% 50V 0402
2I49	2238 586 59812	100nF 20% 50V 0603
2I51	2238 586 59812	100nF 20% 50V 0603
2I57	2238 869 15101	100pF 5% 50V 0402
2I58	2238 869 15101	100pF 5% 50V 0402
2I59	2238 586 59812	100nF 20% 50V 0603
2I63	2238 586 59812	100nF 20% 50V 0603
2I65	2238 869 15101	100pF 5% 50V 0402
2I69	4822 126 14324	33pF 5% 50V 0402
2I70	4822 126 14324	33pF 5% 50V 0402
2I71	2022 552 05679	1µF 10% 16V 0805
2I72	2022 552 05679	1µF 10% 16V 0805
2I73	2022 552 05679	1µF 10% 16V 0805
2I75	2022 552 05679	1µF 10% 16V 0805
2I76	2022 552 05679	1µF 10% 16V 0805
2I77	2022 552 05679	1µF 10% 16V 0805
2I78	2022 552 05679	1µF 10% 16V 0805
2I79	5322 124 41945	22µF 20% 35V
2I80	2022 552 05679	1µF 10% 16V 0805
2I81	2022 552 05679	1µF 10% 16V 0805
2I82	2022 552 05679	1µF 10% 16V 0805
2I84	2022 552 05679	1µF 10% 16V 0805
2I85	2022 552 05679	1µF 10% 16V 0805
2I86	4822 126 14324	33pF 5% 50V 0402
2I90	2020 004 90283	10µF 20% 10V 1206
2I91	2020 552 96628	10nF 10% 16V 0402
2I92	2238 586 59812	100nF 20% 50V 0603
2I93	2238 586 59812	100nF 20% 50V 0603
2I94	2238 586 59812	100nF 20% 50V 0603
2I95	2238 586 59812	100nF 20% 50V 0603
2I96	2020 552 96618	1nF 10% 50V 0402
2I97	2238 586 59812	100nF 20% 50V 0603
2I98	2238 586 59812	100nF 20% 50V 0603
2IA0	4822 124 23002	10µF 16V
2IA1	4822 124 23002	10µF 16V
2IA4	4822 126 14585	100nF 10% 0805 50V
2IA5	2020 021 91557	100µF 20% 16V
2IA7	2020 552 96618	1nF 10% 50V 0402
2IA9	2020 021 91557	100µF 20% 16V
2IB0	2238 586 59812	100nF 20% 50V 0603
2IB3	2238 586 59812	100nF 20% 50V 0603
2IB5	4822 124 11946	22µF 20% 16V
2IB6	3198 034 04790	27pF 1% 50V 0402
2IB8	2238 586 59812	100nF 20% 50V 0603
2IB9	2238 586 59812	100nF 20% 50V 0603
2IC0	4822 124 23002	10µF 16V
2IC1	4822 124 23002	10µF 16V
2IC4	2238 586 59812	100nF 20% 50V 0603
2IC5	2238 586 59812	100nF 20% 50V 0603
2IC6	3198 034 04790	27pF 1% 50V 0402
2IC7	3198 034 04790	27pF 1% 50V 0402
2IC8	4822 124 11946	22µF 20% 16V
2IC9	4822 126 13883	220pF 5% 50V
2ID0	4822 124 11946	22µF 20% 16V
2ID1	4822 124 11946	22µF 20% 16V
2ID2	4822 124 11946	22µF 20% 16V
2ID3	4822 124 11946	22µF 20% 16V
2ID4	4822 124 11946	22µF 20% 16V
2ID5	4822 124 11946	22µF 20% 16V
2ID6	4822 124 23002	10µF 16V
2ID7	2020 552 96618	1nF 10% 50V 0402
2ID8	2238 586 59812	100nF 20% 50V 0603
2ID9	2238 586 59812	100nF 20% 50V 0603
2IDA	2020 004 90297	100µF 20% 16V
2IDC	2020 004 90297	100µF 20% 16V
2IE1	2238 586 59812	100nF 20% 50V 0603
2IE2	2238 586 59812	100nF 20% 50V 0603
2IE3	2022 552 05679	1µF 10% 16V 0805
2IE4	2238 586 59812	100nF 20% 50V 0603
2IE5	2238 586 59812	100nF 20% 50V 0603
2IE6	2238 586 59812	100nF 20% 50V 0603
2IE7	2022 552 05679	1µF 10% 16V 0805
2IE8	2022 552 05679	1µF 10% 16V 0805
2IE9	2020 552 96618	1nF 10% 50V 0402
2IF1	2238 586 59812	100nF 20% 50V 0603
2IF2	2238 586 59812	100nF 20% 50V 0603
2IF3	2238 586 59812	100nF 20% 50V 0603
2IF4	4822 124 80151	47µF 16V
2IF5	2238 586 59812	100nF 20% 50V 0603
2IF7	2020 552 96326	220nF 10% 16V
2IF8	4822 124 11946	22µF 20% 16V
2IF9	4822 124 11946	22µF 20% 16V
2IG0	2020 552 96637	10µF 10% 6.3V 0805
2IG2	5322 124 41945	22µF 20% 35V
2IG3	2020 552 96618	1nF 10% 50V 0402
2IG4	2020 552 96618	1nF 10% 50V 0402
2IG5	2238 586 59812	100nF 20% 50V 0603
2IG6	2020 552 96618	1nF 10% 50V 0402
2IG7	2238 586 59812	100nF 20% 50V 0603
2IG8	2238 586 59812	100nF 20% 50V 0603
2IG9	2238 586 59812	100nF 20% 50V 0603
2IH0	3198 017 34730	47nF 16V 0603
2IH1	2238 586 59812	100nF 20% 50V 0603
2IH2	2020 552 96618	1nF 10% 50V 0402
2IH3	2020 552 96618	1nF 10% 50V 0402
2IH4	2022 552 05679	1µF 10% 16V 0805
2IH5	2238 586 59812	100nF 20% 50V 0603
2IH6	4822 124 11946	22µF 20% 16V
2IH7	4822 124 11946	22µF 20% 16V
2IH8	4822 124 11946	22µF 20% 16V
2IH9	4822 124 11946	22µF 20% 16V
2IHA	2020 552 96793	4.7nF 10% 50V 0402
2IK1	2238 780 15654	220nF 10% 16V 0805
2IK5	2238 586 59812	100nF 20% 50V 0603
2IK6	2238 586 59812	100nF 20% 50V 0603
2IK7	2238 586 59812	100nF 20% 50V 0603
2IN8	2238 586 59812	100nF 20% 50V 0603
2IN9	2238 586 59812	100nF 20% 50V 0603
2IP0	2238 586 59812	100nF 20% 50V 0603
2IP8	2238 586 59812	100nF 20% 50V 0603
2IQ5	2020 021 91557	100µF 20% 16V
2IQ6	2020 552 96628	10nF 10% 16V 0402
2IQ7	4822 124 23002	10µF 16V
2IQ8	2238 586 59812	100nF 20% 50V 0603
2IQ9	2022 552 05679	1µF 10% 16V 0805
2IR1	2238 586 59812	100nF 20% 50V 0603
2IR2	2022 552 05679	1µF 10% 16V 0805
2IR3	2238 586 59812	100nF 20% 50V 0603
2IR4	2238 586 59812	100nF 20% 50V 0603
2IR5	2022 552 05679	1µF 10% 16V 0805
2IR6	2238 586 59812	100nF 20% 50V 0603
2IR7	2022 552 05679	1µF 10% 16V 0805
2IR8	2238 586 59812	100nF 20% 50V 0603
2IR9	2020 021 91557	100µF 20% 16V
2IS0	2022 552 05679	1µF 10% 16V 0805
2IS1	2022 552 05679	1µF 10% 16V 0805
2IS2	2022 552 05679	1µF 10% 16V 0805
2IS3	2022 552 05679	1µF 10% 16V 0805
2IS4	2022 552 05679	1µF 10% 16V 0805
2IS5	2022 552 05679	1µF 10% 16V 0805
2ISA	2238 586 59812	100nF 20% 50V 0603
2ISA	2238 787 15641	22nF 5% 16V 0402
2L00	4822 124 23237	22µF 6.3V
2L01	2238 586 59812	100nF 20% 50V 0603
2L02	2238 586 59812	100nF 20% 50V 0603
2L03	2238 586 59812	100nF 20% 50V 0603
2L04	2238 586 59812	100nF 20% 50V 0603
2L05	2238 586 59812	100nF 20% 50V 0603
2L06	2238 586 59812	100nF 20% 50V 0603
2L07	2238 586 59812	100nF 20% 50V 0603
2L08	2238 586 59812	100nF 20% 50V 0603
2L09	2238 586 59812	100nF 20% 50V 0603
2L10	2238 586 59812	100nF 20% 50V 0603
2L11	2238 586 59812	100nF 20% 50V 0603
2L12	2238 586 59812	100nF 20% 50V 0603
2L13	2238 586 59812	100nF 20% 50V 0603
2L14	2238 586 59812	100nF 20% 50V 0603
2L15	2238 586 59812	100nF 20% 50V 0603
2L16	2238 586 59812	100nF 20% 50V 0603
2L17	2238 586 59812	100nF 20% 50V 0603
2L19	4822 124 23237	22µF 6.3V
2L20	2238 586 59812	100nF 20% 50V 0603
2L21	2238 586 59812	100nF 20% 50V 0603
2L25	2238 586 59812	100nF 20% 50V 0603
2L26	3198 017 33330	33nF 20% 16V 0603
2L27	3198 035 14720	4.7nF 5% 25V 0402
2L28	3198 034 03990	39pF 1% 50V 0402
2L29	3198 034 03990	39pF 1% 50V 0402
2L30	3198 034 03990	39pF 1% 50V 0402
2L31	3198 017 34730	47nF 16V 0603
2L32	3198 035 03320	3.3nF 5% 50V 0402
2L33	2238 586 59812	100nF 20% 50V 0603
2L34	2238 586 59812	100nF 20% 50V 0603
2L51	4822 124 23237	22µF 6.3V
2L52	2238 916 15641	22nF 10% 25V 0603
2L52	3198 017 34730	47nF 16V 0603
2L54	2238 916 15641	22nF 10% 25V 0603
2L54	3198 017 34730	47nF 16V 0603
2L56	2020 552 96618	1nF 10% 50V 0402
2L57	2238 916 15641	22nF 10% 25V 0603
2L57	3198 017 34730	47nF 16V 0603
2L58	4822 124 23237	22µF 6.3V
2L60	3198 034 04790	27pF 1% 50V 0402
2P00	2238 586 59812	100nF 20% 50V 0603
2P01	2020 004 90297	100µF 20% 16V
2P02	2238 586 59812	100nF 20% 50V 0603
2P03	3198 035 14720	4.7nF 5% 25V 0402
2P04	3198 035 14720	4.7nF 5% 25V 0402
2P06	2238 869 15221	220pF 1% 50V 0402
2P09	2022 552 05679	1µF 10% 16V 0805
2P10	2238 586 59812	100nF 20% 50V 0603
2P11	2238 586 59812	100nF 20% 50V 0603
2P12	2238 586 59812	100nF 20% 50V 0603
2P13	2238 586 59812	100nF 20% 50V 0603

2P14	2238 586 59812	100nF 20% 50V 0603
2P15	2238 586 59812	100nF 20% 50V 0603
2P16	2238 586 59812	100nF 20% 50V 0603
2P17	4822 126 14583	470nF 10% 16V 0805
2P18	3198 034 05680	5.6pF 1% 50V 0402
2P18	3198 034 08280	8.2pF 50V
2P19	2238 586 59812	100nF 20% 50V 0603
2P20	2022 552 05679	1µF 10% 16V 0805
2P21	2022 552 05679	1µF 10% 16V 0805
2P23	2238 586 59812	100nF 20% 50V 0603
2P24	2238 586 59812	100nF 20% 50V 0603
2P25	3198 032 55130	10µF 20% 20V
2P26	2238 787 15641	22nF 5% 16V 0402
2P27	2022 552 05679	1µF 10% 16V 0805
2P28	2238 586 59812	100nF 20% 50V 0603
2P29	2022 552 05679	1µF 10% 16V 0805
2P30	3198 035 14720	4.7nF 5% 25V 0402
2P31	2238 586 59812	100nF 20% 50V 0603
2P32	2238 586 59812	100nF 20% 50V 0603
2P33	2238 586 59812	100nF 20% 50V 0603
2P34	2238 586 59812	100nF 20% 50V 0603
2P35	2238 586 59812	100nF 20% 50V 0603
2P36	3198 035 03320	3.3nF 5% 50V 0402
2P37	3198 034 01590	15pF 1% 50V 0402
2P38	3198 034 01280	1.2pF 1% 50V 0402
2P43	2238 869 15109	10pF 5% 50V 0402
2P43	3198 034 01290	12pF 1% 50V 0402
2P44	3198 034 01280	1.2pF 1% 50V 0402
2P44	3198 034 02780	27pF 1% 50V 0402
2P45	2238 586 59812	100nF 20% 50V 0603
2P46	2238 586 59812	100nF 20% 50V 0603
2P47	2238 586 59812	100nF 20% 50V 0603
2P48	4822 126 14324	33pF 5% 50V 0402
2P57	2022 552 05679	1µF 10% 16V 0805
2P58	2022 552 05679	1µF 10% 16V 0805
2P60	2022 552 05679	1µF 10% 16V 0805
2P65	2020 004 90283	10µF 20% 10V 1206
2P66	2238 586 59812	100nF 20% 50V 0603
2P70	2238 586 59812	100nF 20% 50V 0603
2P71	2020 004 90283	10µF 20% 10V 1206
2P72	2022 552 05679	1µF 10% 16V 0805
2P73	2022 552 05679	1µF 10% 16V 0805
2P74	2238 586 59812	100nF 20% 50V 0603
2P75	2022 552 05679	1µF 10% 16V 0805
2P78	2238 586 59812	100nF 20% 50V 0603
2P79	2022 552 05679	1µF 10% 16V 0805
2P80	4822 124 12095	100µF 20% 16V
2P81	2238 586 59812	100nF 20% 50V 0603
2P90	4822 124 12095	100µF 20% 16V
2P97	2020 552 96623	2.2nF 10% 50V 0402
2P98	4822 124 12095	100µF 20% 16V
2P99	4822 124 12095	100µF 20% 16V
2PA0	2022 552 05679	1µF 10% 16V 0805
2PA1	3198 034 01510	150pF 1% 50V 0402
2PA2	2238 586 59812	100nF 20% 50V 0603
2PA3	3198 034 01510	150pF 1% 50V 0402
2PA4	2238 586 59812	100nF 20% 50V 0603
2PA5	3198 034 01510	150pF 1% 50V 0402
2PA6	2238 586 59812	100nF 20% 50V 0603
2PA7	2238 586 59812	100nF 20% 50V 0603
2PA8	2238 586 59812	100nF 20% 50V 0603
2PA9	2020 004 90283	10µF 20% 10V 1206
2PB0	2022 552 05679	1µF 10% 16V 0805
2PB1	3198 034 01510	150pF 1% 50V 0402
2PB2	2238 586 59812	100nF 20% 50V 0603
2PB3	2238 586 59812	100nF 20% 50V 0603
2PB4	3198 034 01510	150pF 1% 50V 0402
2PB6	2238 586 59812	100nF 20% 50V 0603
2PB7	2238 586 59812	100nF 20% 50V 0603
2PB8	4822 124 23002	10µF 16V
2PB9	2238 586 59812	100nF 20% 50V 0603
2PC0	4822 124 23002	10µF 16V
2PC1	2238 586 59812	100nF 20% 50V 0603
2PC2	2238 586 59812	100nF 20% 50V 0603
2PC4	2238 586 59812	100nF 20% 50V 0603
2PC5	2238 586 59812	100nF 20% 50V 0603
2PC7	2238 586 59812	100nF 20% 50V 0603
2PC8	2238 586 59812	100nF 20% 50V 0603
2PC9	2238 586 59812	100nF 20% 50V 0603
2PD0	2020 004 90283	10µF 20% 10V 1206
2PD1	2238 586 59812	100nF 20% 50V 0603
2PD3	2238 586 59812	100nF 20% 50V 0603
2PD4	2238 586 59812	100nF 20% 50V 0603
2PD5	4822 124 23002	10µF 16V
2PD6	4822 124 23002	10µF 16V
2PD7	2238 586 59812	100nF 20% 50V 0603
2PD9	2238 586 59812	100nF 20% 50V 0603
2PE4	2238 586 59812	100nF 20% 50V 0603
2PE5	2238 586 59812	100nF 20% 50V 0603
2PE6	2238 586 59812	100nF 20% 50V 0603
2PE7	2022 552 05679	1µF 10% 16V 0805
2PE8	2022 552 05679	1µF 10% 16V 0805
2PE9	2238 586 59812	100nF 20% 50V 0603
2PE9	4822 126 14585	100nF 10% 0805 50V
2PF1	4822 124 23002	10µF 16V
2PF2	2238 586 59812	100nF 20% 50V 0603
2PF3	3198 034 01510	150pF 1% 50V 0402
2PF7	2020 004 90283	10µF 20% 10V 1206
2PF8	4822 124 23002	10µF 16V
2PF9	4822 124 23002	10µF 16V
2PG0	2022 552 05679	1µF 10% 16V 0805
2PG6	2020 004 90283	10µF 20% 10V 1206
2T01	3198 032 28210	220µF 20% 6.3V
2T02	2238 586 15641	22nF 10% 50V 0603
2T03	3198 032 28210	220µF 20% 6.3V
2T04	2238 586 15641	22nF 10% 50V 0603
2T05	3198 032 28210	220µF 20% 6.3V
2T06	2020 552 96628	10nF 10% 16V 0402
2T09	3198 017 34730	47nF 16V 0603
2T10	3198 017 34730	47nF 16V 0603
2T12	2238 586 59812	100nF 20% 50V 0603
2T13	2020 552 96628	10nF 10% 16V 0402
2T14	5322 126 11583	10nF 10% 50V 0603
2T15	2022 552 05679	1µF 10% 16V 0805
2T16	2022 552 05679	1µF 10% 16V 0805
2T19	3198 032 28210	220µF 20% 6.3V
2T20	3198 032 28210	220µF 20% 6.3V
2T21	2020 552 96683	220nF 10% 50V
2T21	3198 032 28210	220µF 20% 6.3V
2T22	2020 552 96683	220nF 10% 50V
2T60	3198 032 28210	220µF 20% 6.3V
2T62	2020 552 96683	220nF 10% 50V
2T63	2020 552 96683	220nF 10% 50V
2U03	2022 552 05679	1µF 10% 16V 0805
2U04	4822 126 14583	470nF 10% 16V 0805
2U05	2020 552 96618	1nF 10% 50V 0402
2U06	2022 552 05635	22µF 10% 16V
2U06	2222 784 13681	22µF 10% 16V X5R 1812
2U07	2238 869 15829	82pF 5% 50V 0402
2U08	2022 552 05635	22µF 10% 16V
2U08	2222 784 13681	22µF 10% 16V X5R 1812
2U09	2020 552 96618	1nF 10% 50V 0402
2U10	2022 552 05635	22µF 10% 16V
2U10	2222 784 13681	22µF 10% 16V X5R 1812
2U11	2020 552 96618	1nF 10% 50V 0402
2U12	2020 552 96628	10nF 10% 16V 0402
2U13	2238 780 15654	220nF 10% 16V 0805
2U14	4822 126 14583	470nF 10% 16V 0805
2U15	4822 124 12095	100µF 20% 16V
2U16	3198 035 14720	4.7nF 5% 25V 0402
2U17	4822 126 14583	470nF 10% 16V 0805
2U18	3198 034 01210	120pF 1% 50V 0402
2U19	2238 586 59812	100nF 20% 50V 0603
2U20	2022 552 05679	1µF 10% 16V 0805
2U21	4822 126 14583	470nF 10% 16V 0805
2U22	2022 552 05679	1µF 10% 16V 0805
2U23	4822 124 12095	100µF 20% 16V
2U24	2020 552 96618	1nF 10% 50V 0402
2U25	2238 586 59812	100nF 20% 50V 0603
2U26	2238 586 59812	100nF 20% 50V 0603
2U27	3198 035 26820	6.8nF 10% 16V 0402
2U28	3198 035 26820	6.8nF 10% 16V 0402
2U30	3198 034 01210	120pF 1% 50V 0402
2U31	4822 124 12095	100µF 20% 16V
2U32	3198 035 03320	3.3nF 5% 50V 0402
2U33	2022 552 05679	1µF 10% 16V 0805
2U34	2238 787 15641	22nF 5% 16V 0402
2U35	2022 552 05679	1µF 10% 16V 0805
2U36	2238 586 59812	100nF 20% 50V 0603
2U37	2020 552 96623	2.2nF 10% 50V 0402
2U39	2238 586 59812	100nF 20% 50V 0603
2U40	2020 552 96623	2.2nF 10% 50V 0402
2U41	3198 035 26820	6.8nF 10% 16V 0402
2U42	3198 017 34730	47nF 16V 0603
2V11	3198 035 04710	470pF 50V 0402
2V12	3198 035 04710	470pF 50V 0402
2Y00	2238 869 15101	100pF 5% 50V 0402
2Y01	2238 869 15101	100pF 5% 50V 0402
2Y02	2238 869 15101	100pF 5% 50V 0402
2Y03	2238 869 15101	100pF 5% 50V 0402
2Y04	2238 869 15101	100pF 5% 50V 0402
2Y07	2238 869 15101	100pF 5% 50V 0402
2Y09	2238 869 15101	100pF 5% 50V 0402
2Y10	2238 869 15101	100pF 5% 50V 0402
2Y12	2238 869 15101	100pF 5% 50V 0402
2Y13	2238 586 59812	100nF 20% 50V 0603
2Y14	2238 869 15101	100pF 5% 50V 0402
2Y15	2238 869 15101	100pF 5% 50V 0402
2Y16	2238 869 15101	100pF 5% 50V 0402
2Y17	2238 869 15101	100pF 5% 50V 0402
2Y18	2238 869 15101	100pF 5% 50V 0402
2Y19	2238 869 15101	100pF 5% 50V 0402
2Y23	2238 869 15101	100pF 5% 50V 0402
2Y25	2238 869 15101	100pF 5% 50V 0402
2Y26	2238 869 15101	100pF 5% 50V 0402
2Y27	2020 552 96618	1nF 10% 50V 0402
2Y28	2020 552 96618	1nF 10% 50V 0402
2Y29	2020 552 96618	1nF 10% 50V 0402
2Y30	4822 124 12095	100µF 20% 16V
2Y31	4822 124 12095	100µF 20% 16V
2Y32	2020 552 96618	1nF 10% 50V 0402
2Y33	2020 552 96618	1nF 10% 50V 0402
2Y34	2238 869 15101	100pF 5% 50V 0402
2Y37	2238 869 15101	100pF 5% 50V 0402
2Y38	2238 869 15101	100pF 5% 50V 0402
2Y39	2238 869 15101	100pF 5% 50V 0402
2Y40	2238 869 15101	100pF 5% 50V 0402
2Y41	2238 869 15101	100pF 5% 50V 0402
2Y42	2238 869 15101	100pF 5% 50V 0402
2Y43	2238 869 15101	100pF 5% 50V 0402
2Y49	2238 869 15101	100pF 5% 50V 0402
2Y50	2238 869 15101	100pF 5% 50V 0402
2Y51	2238 869 15101	100pF 5% 50V 0402
2Y52	2238 787 15641	22nF 5% 16V 0402
2Y52	3198 035 71040	100nF 10% 16V 0402
2Y53	2238 869 15101	100pF 5% 50V 0402
2Z44	4822 126 14519	22pF 5% 50V 0402
2Z45	4822 126 14519	22pF 5% 50V 0402
2Z46	4822 126 14519	22pF 5% 50V 0402
2Z47	4822 126 14519	22pF 5% 50V 0402
2Z48	4822 126 14519	22pF 5% 50V 0402
2Z49	4822 126 14519	22pF 5% 50V 0402
2Z50	4822 126 14519	22pF 5% 50V 0402
2Z51	4822 126 14519	22pF 5% 50V 0402
2Z52	4822 126 14519	22pF 5% 50V 0402
2Z53	4822 126 14519	22pF 5% 50V 0402
2Z57	4822 117 13605	Jumper 0402
2Z58	2020 552 96628	10nF 10% 16V 0402
2Z58	4822 117 13605	Jumper 0402
2Z59	4822 117 13605	Jumper 0402
2Z60	2238 869 15101	100pF 5% 50V 0402
2Z61	2238 869 15101	100pF 5% 50V 0402
2Z62	4822 117 13605	Jumper 0402

–WW–

3001	3198 031 04720	4.7kΩ 5% 0402
3002	3198 031 04720	4.7kΩ 5% 0402
3003	4822 117 13525	24kΩ 1% 0.62W 0603
3005	4822 117 13606	10kΩ 5% 0.01W 0402
3006	4822 117 13543	470Ω 5% 0402
3007	2350 033 10471	4 x 470Ω 5%
3008	2350 033 10101	4 x 100Ω 5%
3009	3198 031 01810	180Ω 5% 0402
3010	4822 117 13606	10kΩ 5% 0.01W 0402
3011	3198 031 04720	4.7kΩ 5% 0402
3012	2350 033 10101	4 x 100Ω 5%
3013	4822 117 13606	10kΩ 5% 0.01W 0402
3014	3198 031 06820	6.8kΩ 5% 0.01W 0402
3015	3198 031 04740	470kΩ 5% 0402
3016	2322 706 71502	1.5kΩ 1% 0402
3017	3198 031 04720	4.7kΩ 5% 0402
3018	4822 117 13606	10kΩ 5% 0.01W 0402
3019	3198 031 04720	4.7kΩ 5% 0402
3020	4822 117 13606	10kΩ 5% 0.01W 0402
3021	4822 117 13606	10kΩ 5% 0.01W 0402
3024	3198 031 02730	27kΩ 5% 0402
3025	4822 117 13596	220Ω 5% 0.01W 0402
3026	3198 031 04720	4.7kΩ 5% 0402
3027	3198 031 04730	47Ω 5% 0402
3029	2350 033 10101	4 x 100Ω 5%
3031	2350 033 10101	4 x 100Ω 5%
3033	4822 117 11297	100kΩ 5% 0.1W
3034	2350 033 10101	4 x 100Ω 5%
3035	2350 033 10101	4 x 100Ω 5%
3038	4822 117 13606	10kΩ 5% 0.01W 0402
3039	3198 031 01810	180Ω 5% 0402
3039	4822 117 13597	330Ω 5% 0.01W 0402
3046	2350 033 10101	4 x 100Ω 5%
3048	2350 033 10101	4 x 100Ω 5%
3049	2350 033 10101	4 x 100Ω 5%
3050	2350 033 10101	4 x 100Ω 5%
3051	2350 033 10101	4 x 100Ω 5%
3052	2350 033 10101	4 x 100Ω 5%
3053	4822 117 13606	10kΩ 5% 0.01W 0402
3054	2350 033 10101	4 x 100Ω 5%
3055	2350 033 10101	4 x 100Ω 5%
3056	2350 033 10101	4 x 100Ω 5%
3057	2350 033 10101	4 x 100Ω 5%
3059	2322 704 66201	620Ω 1% 0603
3061	2350 033 10101	4 x 100Ω 5%
3062	4822 117 13606	10kΩ 5% 0.01W 0402
3064	2350 033 10101	4 x 100Ω 5%
3065	3198 031 04720	4.7kΩ 5% 0402
3066	3198 031 04730	47Ω 5% 0402
3067	3198 031 04740	470kΩ 5% 0402
3068	4822 051 30472	4.7Ω 5% 0.062W
3069	3198 031 01820	1.8kΩ 5% 0.01W 0402
3072	2350 033 10101	4 x 100Ω 5%
3073	2350 033 10471	4 x 470Ω 5%
3074	2350 033 10471	4 x 470Ω 5%

3075	2020 552 96628	10nF 10% 16V 0402
3076	2350 033 10471	4 x 470Ω 5%
3077	3198 031 04720	4.7kΩ 5% 0402
3078	2350 033 10471	4 x 470Ω 5%
3079	3198 031 01820	1.8kΩ 5% 0.01W 0402
3080	4822 117 13606	10kΩ 5% 0.01W 0402
3081	4822 117 13543	470Ω 5% 0402
3082	2350 033 10101	4 x 100Ω 5%
3083	2350 033 10101	4 x 100Ω 5%
3084	4822 117 13606	10kΩ 5% 0.01W 0402
3085	2350 033 10101	4 x 100Ω 5%
3086	2350 033 10101	4 x 100Ω 5%
3087	4822 117 13545	100Ω 1% 0402
3088	3198 031 01820	1.8kΩ 5% 0.01W 0402
3089	4822 117 13545	100Ω 1% 0402
3090	2350 033 10471	4 x 470Ω 5%
3092	3198 031 01820	1.8kΩ 5% 0.01W 0402
3093	4822 117 13606	10kΩ 5% 0.01W 0402
3097	4822 117 13543	470Ω 5% 0402
3099	2350 033 10471	4 x 470Ω 5%
3100	4822 117 13596	220Ω 5% 0.01W 0402
3101	4822 117 13596	220Ω 5% 0.01W 0402
3102	2350 033 10101	4 x 100Ω 5%
3103	4822 117 13543	470Ω 5% 0402
3304⚠	2322 750 63908	3.9Ω 5% Fuse 1206
3370	4822 117 13545	100Ω 1% 0402
3371	4822 117 13546	47Ω 5% 0402
3372	4822 117 13543	470Ω 5% 0402
3376	4822 117 13545	100Ω 1% 0402
3377	4822 117 13545	100Ω 1% 0402
3378	3198 031 01530	15kΩ 5% 0.01W 0402
3380	4822 117 13545	100Ω 1% 0402
3382	4822 117 13543	470Ω 5% 0402
3385	4822 117 13543	470Ω 5% 0402
3393	4822 117 11297	100kΩ 5% 0.1W
3400⚠	4822 117 11152	4.7Ω 5%
3402⚠	2322 750 63908	3.9Ω 5% Fuse 1206
3404	3198 031 05610	560Ω 5% 0.01W 0402
3405	4822 117 13548	1kΩ 5% 0402
3407	3198 031 05620	5.6kΩ 5% 0.01W 0402
3408	4822 117 13545	100Ω 1% 0402
3409	3198 031 04720	4.7kΩ 5% 0402
3410	3198 031 04720	4.7kΩ 5% 0402
3413	3198 031 02710	270Ω 5% 0.1W 0402
3415	3198 031 08220	8.2kΩ 5% 0.5W
3417	3198 031 05620	5.6kΩ 5% 0.01W 0402
3418	3198 031 03910	390Ω 1% 0402
3419	4822 117 13545	100Ω 1% 0402
3419	4822 117 13546	47Ω 5% 0402
3421	3198 031 05620	5.6kΩ 5% 0.01W 0402
3422	4822 117 13548	1kΩ 5% 0402
3423	3198 031 05620	5.6kΩ 5% 0.01W 0402
3433	3198 031 03920	3.9kΩ 5% 0402
3434	3198 031 04720	4.7kΩ 5% 0402
3436	3198 031 01810	180Ω 5% 0402
3437	4822 117 13543	470Ω 5% 0402
3437	4822 117 13548	1kΩ 5% 0402
3439	3198 031 03910	390Ω 1% 0402
3439	3198 031 05610	560Ω 5% 0.01W 0402
3441	4822 117 13601	22kΩ 5% 0402
3445	4822 117 13605	Jumper 0402
3463	3198 031 01830	18kΩ 5% 0.01W 0402
3473	4822 117 13548	1kΩ 5% 0402
3474	3198 031 01090	10Ω 5% 0.01W 0402
3475⚠	5322 117 11726	10Ω 5%
3476	3198 031 05610	560Ω 5% 0.01W 0402
3700	3198 031 02290	22Ω 5% 0.1W 0402
3701	4822 117 13548	1kΩ 5% 0402
3702	3198 031 01090	10Ω 5% 0.01W 0402
3706	4822 117 13545	100Ω 1% 0402
3707	4822 117 13545	100Ω 1% 0402
3709	4822 117 13545	100Ω 1% 0402
3710	4822 117 13545	100Ω 1% 0402
3712	3198 031 04730	47Ω 5% 0402
3713	3198 031 01810	180Ω 5% 0402
3713	4822 117 13605	Jumper 0402
3714	3198 031 01810	180Ω 5% 0402
3714	4822 117 13605	Jumper 0402
3715	3198 031 01810	180Ω 5% 0402
3715	4822 117 13605	Jumper 0402
3716	4822 117 11297	100kΩ 5% 0.1W
3717	4822 117 11297	100kΩ 5% 0.1W
3718	4822 117 11297	100kΩ 5% 0.1W
3719	3198 031 03320	3.3kΩ 5% 0402
3720	4822 117 13606	10kΩ 5% 0.01W 0402
3721	4822 117 13545	100Ω 1% 0402
3722	4822 117 13548	1kΩ 5% 0402
3724	4822 117 13545	100Ω 1% 0402
3725	3198 031 03320	3.3kΩ 5% 0402
3726	3198 031 01220	1.2kΩ 5% 0.01W 0402
3727	3198 031 01510	150Ω 5% 0.01W 0402
3728	3198 031 01510	150Ω 5% 0.01W 0402
3729	4822 117 13605	Jumper 0402
3730	3198 031 05610	560Ω 5% 0.01W 0402
3732	3198 031 04730	47Ω 5% 0402
3733	4822 117 13548	1kΩ 5% 0402
3734	4822 117 13545	100Ω 1% 0402
3736	4822 117 13545	100Ω 1% 0402
3737	4822 117 13548	1kΩ 5% 0402
3738	4822 117 13548	1kΩ 5% 0402
3739	3198 031 01230	12kΩ 5% 0402
3740	3198 031 04720	4.7kΩ 5% 0402
3742	4822 117 13601	22kΩ 5% 0402
3743	4822 117 13606	10kΩ 5% 0.01W 0402
3744	4822 117 13602	2.2kΩ 5% 0.01W 0402
3745	4822 117 13548	1kΩ 5% 0402
3746	3198 031 03920	3.9kΩ 5% 0402
3747	3198 031 04730	47Ω 5% 0402
3748	2322 705 70124	120kΩ 5% 0402
3749	3198 031 03920	3.9kΩ 5% 0402
3750	3198 031 03920	3.9kΩ 5% 0402
3751	3198 031 03320	3.3kΩ 5% 0402
3752	4822 117 13605	Jumper 0402
3753	4822 117 13605	Jumper 0402
3754	4822 117 13545	100Ω 1% 0402
3755	3198 031 04720	4.7kΩ 5% 0402
3756	4822 117 13606	10kΩ 5% 0.01W 0402
3757	3198 031 01510	150Ω 5% 0.01W 0402
3758	3198 031 04720	4.7kΩ 5% 0402
3759	4822 117 13596	220Ω 5% 0.01W 0402
3762	3198 031 06890	68Ω 5% 0402
3763	3198 031 06890	68Ω 5% 0402
3764	3198 031 06890	68Ω 5% 0402
3766	4822 117 13548	1kΩ 5% 0402
3767	3198 031 06890	68Ω 5% 0402
3768	3198 031 06890	68Ω 5% 0402
3769	3198 031 06890	68Ω 5% 0402
3770	3198 031 06890	68Ω 5% 0402
3771	3198 031 07590	75Ω 5% 0402
3772	3198 031 07590	75Ω 5% 0402
3773	3198 031 07590	75Ω 5% 0402
3774	3198 031 06890	68Ω 5% 0402
3775	3198 031 06890	68Ω 5% 0402
3776	3198 031 07590	75Ω 5% 0402
3777	3198 031 06890	68Ω 5% 0402
3778	3198 031 04720	4.7kΩ 5% 0402
3779	3198 031 06890	68Ω 5% 0402
3780	3198 031 06890	68Ω 5% 0402
3781	3198 031 06890	68Ω 5% 0402
3782	4822 117 13548	1kΩ 5% 0402
3784	3198 031 06890	68Ω 5% 0402
3792	3198 031 01510	150Ω 5% 0.01W 0402
3793	4822 117 13602	2.2kΩ 5% 0.01W 0402
3794	3198 031 07590	75Ω 5% 0402
3795	3198 031 01510	150Ω 5% 0.01W 0402
3797	3198 031 04720	4.7kΩ 5% 0402
3800	3198 031 07590	75Ω 5% 0402
3801	3198 031 01510	150Ω 5% 0.01W 0402
3802	3198 031 01510	150Ω 5% 0.01W 0402
3803	3198 031 06890	68Ω 5% 0402
3804	3198 031 06890	68Ω 5% 0402
3805	4822 117 13545	100Ω 1% 0402
3811	3198 031 07590	75Ω 5% 0402
3812	3198 031 07590	75Ω 5% 0402
3814	3198 031 07590	75Ω 5% 0402
3815	3198 031 07590	75Ω 5% 0402
3817	3198 031 07590	75Ω 5% 0402
3818	3198 031 07590	75Ω 5% 0402
3820	3198 031 04720	4.7kΩ 5% 0402
3821	3198 031 03390	33Ω 1% 0402
3823	3198 031 06890	68Ω 5% 0402
3826	4822 117 13545	100Ω 1% 0402
3827	4822 117 13545	100Ω 1% 0402
3829	4822 117 13545	100Ω 1% 0402
3830	3198 031 06890	68Ω 5% 0402
3831	3198 031 06890	68Ω 5% 0402
3832	3198 031 06890	68Ω 5% 0402
3833	3198 031 06890	68Ω 5% 0402
3834	3198 031 06890	68Ω 5% 0402
3835	3198 031 06890	68Ω 5% 0402
3836	3198 031 06890	68Ω 5% 0402
3837	3198 031 06890	68Ω 5% 0402
3838	3198 031 06890	68Ω 5% 0402
3839	3198 031 06890	68Ω 5% 0402
3840	3198 031 06890	68Ω 5% 0402
3841	3198 031 06890	68Ω 5% 0402
3842	3198 031 06890	68Ω 5% 0402
3843	3198 031 06890	68Ω 5% 0402
3844	3198 031 06890	68Ω 5% 0402
3845	3198 031 06890	68Ω 5% 0402
3846	3198 031 04720	4.7kΩ 5% 0402
3853	3198 031 04730	47Ω 5% 0402
3855	3198 031 04720	4.7kΩ 5% 0402
3856	3198 031 01090	10Ω 5% 0.01W 0402
3857	3198 031 01090	10Ω 5% 0.01W 0402
3858	3198 031 01090	10Ω 5% 0.01W 0402
3859	3198 031 01090	10Ω 5% 0.01W 0402
3860	3198 031 01090	10Ω 5% 0.01W 0402
3861	3198 031 01090	10Ω 5% 0.01W 0402
3864	4822 117 13545	100Ω 1% 0402
3865	4822 117 13545	100Ω 1% 0402
3867	4822 117 13545	100Ω 1% 0402
3868	4822 117 13545	100Ω 1% 0402
3869	4822 117 13545	100Ω 1% 0402
3870	4822 117 13545	100Ω 1% 0402
3871	4822 117 13545	100Ω 1% 0402
3872	4822 117 13545	100Ω 1% 0402
3873	4822 117 13545	100Ω 1% 0402
3874	4822 117 13545	100Ω 1% 0402
3880	3198 031 04730	47Ω 5% 0402
3881	3198 031 04730	47Ω 5% 0402
3882	3198 031 04730	47Ω 5% 0402
3883	3198 031 04730	47Ω 5% 0402
3884	3198 031 04730	47Ω 5% 0402
3885	4822 117 13548	1kΩ 5% 0402
3886	4822 117 13548	1kΩ 5% 0402
3887	4822 117 13548	1kΩ 5% 0402
3888	4822 117 13548	1kΩ 5% 0402
3889	4822 117 13548	1kΩ 5% 0402
3890	4822 117 13548	1kΩ 5% 0402
3891	4822 117 13548	1kΩ 5% 0402
3894	3198 031 01510	150Ω 5% 0.01W 0402
3896	4822 117 13605	Jumper 0402
3900	3198 031 06890	68Ω 5% 0402
3901	3198 031 06890	68Ω 5% 0402
3902	3198 031 06890	68Ω 5% 0402
3903	4822 117 11297	100kΩ 5% 0.1W
3905	3198 031 04720	4.7kΩ 5% 0402
3909	4822 117 13545	100Ω 1% 0402
3911	2350 033 11689	4x 68Ω 5% Netw.
3912	2350 033 11689	4x 68Ω 5% Netw.
3913	2350 033 11229	4x 22Ω 5% Netw.
3914	2350 033 11229	4x 22Ω 5% Netw.
3915	2350 033 11229	4x 22Ω 5% Netw.
3916	2350 033 11229	4x 22Ω 5% Netw.
3917	2350 033 11229	4x 22Ω 5% Netw.
3918	3198 031 06890	68Ω 5% 0402
3919	3198 031 06890	68Ω 5% 0402
3921	3198 031 06890	68Ω 5% 0402
3922	4822 117 13596	220Ω 5% 0.01W 0402
3923	3198 031 06810	680Ω 5% 0.01W 0402
3924	4822 117 13596	220Ω 5% 0.01W 0402
3927	4822 117 13596	220Ω 5% 0.01W 0402
3928	3198 031 06810	680Ω 5% 0.01W 0402
3929	4822 117 13596	220Ω 5% 0.01W 0402
3930	4822 117 13596	220Ω 5% 0.01W 0402
3931	4822 117 13596	220Ω 5% 0.01W 0402
3932	3198 031 06810	680Ω 5% 0.01W 0402
3A00	4822 117 13601	22kΩ 5% 0402
3A01	4822 117 13606	10kΩ 5% 0.01W 0402
3A02	3198 031 04730	47Ω 5% 0402
3A03⚠	4822 117 13568	6.8Ω 5% 1206
3A04	4822 117 13601	22kΩ 5% 0402
3A05	4822 117 13601	22kΩ 5% 0402
3A06	4822 117 11297	100kΩ 5% 0.1W
3A07	4822 117 11297	100kΩ 5% 0.1W
3A09	4822 117 13601	22kΩ 5% 0402
3A11	4822 117 11297	100kΩ 5% 0.1W
3A12	3198 031 04730	47Ω 5% 0402
3A13	3198 031 04730	47Ω 5% 0402
3A14	3198 031 04730	47Ω 5% 0402
3A15	4822 117 11297	100kΩ 5% 0.1W
3A16	4822 117 13545	100Ω 1% 0402
3A17	4822 117 13545	100Ω 1% 0402
3A18	3198 031 06830	68kΩ 5% 0.01W 0402
3A19	4822 117 13545	100Ω 1% 0402
3A20	4822 117 11297	100kΩ 5% 0.1W
3A21	3198 031 06830	68kΩ 5% 0.01W 0402
3A22	4822 117 11297	100kΩ 5% 0.1W
3A23	3198 031 06830	68kΩ 5% 0.01W 0402
3A24	3198 031 06810	680Ω 5% 0.01W 0402
3A26	3198 031 06830	68kΩ 5% 0.01W 0402
3A27	3198 031 06820	6.8kΩ 5% 0.01W 0402
3A28	3198 031 06820	6.8kΩ 5% 0.01W 0402
3A40	3198 031 04730	47Ω 5% 0402
3A45	3198 031 04730	47Ω 5% 0402
3A46	3198 031 04720	4.7kΩ 5% 0402
3A47	3198 031 04730	47Ω 5% 0402
3A49	3198 031 04730	47Ω 5% 0402
3A51	3198 031 04720	4.7kΩ 5% 0402
3A52	3198 031 05630	56kΩ 5% 0402
3A53	3198 031 05630	56kΩ 5% 0402
3A55	4822 117 13597	330Ω 5% 0.01W 0402
3A60	4822 117 11297	100kΩ 5% 0.1W
3A61	4822 117 13597	330Ω 5% 0.01W 0402
3A63	4822 117 13601	22kΩ 5% 0402
3A64	3198 031 04730	47Ω 5% 0402
3A65	4822 117 11297	100kΩ 5% 0.1W
3A66	4822 117 11297	100kΩ 5% 0.1W
3A67	4822 117 13543	470Ω 5% 0402
3C00	4822 117 13602	2.2kΩ 5% 0.01W 0402
3C01	3198 031 01090	10Ω 5% 0.01W 0402

3C03	4822 117 13606	10kΩ 5% 0.01W 0402
3C04	4822 117 13606	10kΩ 5% 0.01W 0402
3C05	4822 117 13543	470Ω 5% 0402
3C08	4822 051 30103	10kΩ 5% 0.062W
3C10	4822 117 13545	100Ω 1% 0402
3C11	4822 117 13545	100Ω 1% 0402
3C12	3198 031 06890	68Ω 5% 0402
3E00	4822 117 13606	10kΩ 5% 0.01W 0402
3E01	4822 117 13548	1kΩ 5% 0402
3E02	4822 117 13548	1kΩ 5% 0402
3E03	4822 117 13548	1kΩ 5% 0402
3E04	4822 117 13548	1kΩ 5% 0402
3E05	3198 031 01520	1.2kΩ 5% 0.01W 0402
3E06	4822 117 13545	100Ω 1% 0402
3E07	4822 117 13545	100Ω 1% 0402
3E08	4822 117 13545	100Ω 1% 0402
3E11	4822 117 13543	470Ω 5% 0402
3E12	4822 117 13543	470Ω 5% 0402
3E14	4822 117 13548	1kΩ 5% 0402
3E16	3198 031 02720	2.7kΩ 5% 0.01W 0402
3E18	4822 117 13545	100Ω 1% 0402
3E19	4822 117 13545	100Ω 1% 0402
3E37	4822 117 13545	100Ω 1% 0402
3E50	4822 117 13606	10kΩ 5% 0.01W 0402
3E51	4822 117 13606	10kΩ 5% 0.01W 0402
3E52	4822 117 13606	10kΩ 5% 0.01W 0402
3E53	4822 117 13606	10kΩ 5% 0.01W 0402
3E54	4822 117 13546	47Ω 5% 0402
3E55	4822 117 13606	10kΩ 5% 0.01W 0402
3E56	4822 117 13603	33kΩ 5% 0402
3E57	4822 117 11297	100kΩ 5% 0.1W
3E58	4822 117 13546	47Ω 5% 0402
3E59	4822 117 13606	10kΩ 5% 0.01W 0402
3E61	4822 117 13546	47Ω 5% 0402
3E62	4822 117 13548	1kΩ 5% 0402
3E63	4822 117 13606	10kΩ 5% 0.01W 0402
3E64	4822 117 13606	10kΩ 5% 0.01W 0402
3E69	3198 031 04720	4.7kΩ 5% 0402
3E70	3198 031 04720	4.7kΩ 5% 0402
3E73	4822 117 13606	10kΩ 5% 0.01W 0402
3E74	4822 117 13546	47Ω 5% 0402
3E77	4822 117 13546	47Ω 5% 0402
3E78	4822 117 13546	47Ω 5% 0402
3E79	4822 117 13546	47Ω 5% 0402
3E80	4822 117 13546	47Ω 5% 0402
3E81	4822 117 13546	47Ω 5% 0402
3E82	3198 031 01090	10Ω 5% 0.01W 0402
3E83	3198 031 01090	10Ω 5% 0.01W 0402
3E84	3198 031 01090	10Ω 5% 0.01W 0402
3E85	3198 031 01090	10Ω 5% 0.01W 0402
3E86	3198 031 01090	10Ω 5% 0.01W 0402
3E88	4822 117 13546	47Ω 5% 0402
3E89	4822 117 13546	47Ω 5% 0402
3E90	3198 031 06890	68Ω 5% 0402
3E91	3198 031 03390	33Ω 1% 0402
3I07	4822 117 13606	10kΩ 5% 0.01W 0402
3I28	4822 051 30101	100Ω 5% 0.062W
3I32	4822 117 13548	1kΩ 5% 0402
3I33	4822 051 30101	100Ω 5% 0.062W
3I34	4822 117 13606	10kΩ 5% 0.01W 0402
3I36	4822 117 13601	22kΩ 5% 0402
3I37	4822 117 13601	22kΩ 5% 0402
3I38	4822 117 13601	22kΩ 5% 0402
3I39	3198 031 04720	4.7kΩ 5% 0402
3I40	4822 051 30101	100Ω 5% 0.062W
3I41	4822 117 13548	1kΩ 5% 0402
3I42	4822 117 13548	1kΩ 5% 0402
3I44	4822 117 13606	10kΩ 5% 0.01W 0402
3I45	3198 031 04730	47Ω 5% 0402
3I46	4822 117 13545	100Ω 1% 0402
3I49	4822 117 13545	100Ω 1% 0402
3I54	4822 051 30101	100Ω 5% 0.062W
3I55	4822 051 30759	75Ω 5% 0.062W
3I56	4822 051 30101	100Ω 5% 0.062W
3I57	4822 051 30759	75Ω 5% 0.062W
3I58	4822 051 30101	100Ω 5% 0.062W
3I59	4822 051 30759	75Ω 5% 0.062W
3I61	4822 051 30101	100Ω 5% 0.062W
3I62	4822 051 30101	100Ω 5% 0.062W
3I69	4822 051 30271	270Ω 5% 0.062W
3I70	4822 051 30101	100Ω 5% 0.062W
3I71	4822 051 30271	270Ω 5% 0.062W
3I72	4822 051 30101	100Ω 5% 0.062W
3I73	4822 051 30101	100Ω 5% 0.062W
3I74	4822 051 30759	75Ω 5% 0.062W
3I76	4822 051 30101	100Ω 5% 0.062W
3I77	4822 051 30759	75Ω 5% 0.062W
3I78	4822 051 30759	75Ω 5% 0.062W
3I79	4822 051 30101	100Ω 5% 0.062W
3I80	4822 051 30101	100Ω 5% 0.062W
3I83	4822 051 30101	100Ω 5% 0.062W
3I84	4822 051 30759	75Ω 5% 0.062W
3I89	4822 051 30271	270Ω 5% 0.062W
3I90	4822 051 30101	100Ω 5% 0.062W
3I91	4822 051 30271	270Ω 5% 0.062W
3I92	4822 051 30101	100Ω 5% 0.062W
3I98	4822 117 13605	Jumper 0402
3I99	4822 051 30271	270Ω 5% 0.062W
3IA0	4822 051 30101	100Ω 5% 0.062W
3IA2	4822 051 30101	100Ω 5% 0.062W
3IA2	4822 117 13545	100Ω 1% 0402
3IA3	4822 117 13601	22kΩ 5% 0402
3IA4	4822 117 13548	1kΩ 5% 0402
3IA5	4822 117 13548	1kΩ 5% 0402
3IA6	4822 117 13548	1kΩ 5% 0402
3IA7	4822 117 13548	1kΩ 5% 0402
3IA8	4822 117 13548	1kΩ 5% 0402
3IAA	2120 550 00054	VDR 90V 1mA 0402
3IAA	8204 000 77491	VDR 90V 1mA 0402
3IAB	2120 550 00054	VDR 90V 1mA 0402
3IAB	8204 000 77491	VDR 90V 1mA 0402
3IAC	2120 550 00054	VDR 90V 1mA 0402
3IAC	8204 000 77491	VDR 90V 1mA 0402
3IAD	2120 550 00054	VDR 90V 1mA 0402
3IAD	8204 000 77491	VDR 90V 1mA 0402
3IAE	2120 550 00054	VDR 90V 1mA 0402
3IAE	8204 000 77491	VDR 90V 1mA 0402
3IAF	2120 550 00054	VDR 90V 1mA 0402
3IAF	8204 000 77491	VDR 90V 1mA 0402
3IAG	2120 550 00054	VDR 90V 1mA 0402
3IAG	8204 000 77491	VDR 90V 1mA 0402
3IAH	2120 550 00054	VDR 90V 1mA 0402
3IAH	8204 000 77491	VDR 90V 1mA 0402
3IB1	4822 117 13606	10kΩ 5% 0.01W 0402
3IB2	4822 051 30101	100Ω 5% 0.062W
3IB3	4822 117 13606	10kΩ 5% 0.01W 0402
3IB4	4822 117 13601	22kΩ 5% 0402
3IB5	4822 117 13601	22kΩ 5% 0402
3IBA	4822 117 13545	100Ω 1% 0402
3IBB	4822 117 13545	100Ω 1% 0402
3IC1▲	4822 117 13574	1.5Ω 5% 1206
3IC2	4822 117 13601	22kΩ 5% 0402
3IC3	4822 117 13601	22kΩ 5% 0402
3IC4	4822 051 30101	100Ω 5% 0.062W
3IC6	4822 051 30101	100Ω 5% 0.062W
3IC8	4822 117 13548	1kΩ 5% 0402
3IC9	4822 117 13601	22kΩ 5% 0402
3ID0	3198 031 04720	4.7kΩ 5% 0402
3ID1	3198 031 01540	150kΩ 5% 0402
3ID5	3198 031 01090	10Ω 5% 0.01W 0402
3ID7	4822 117 11297	100kΩ 5% 0.1W
3ID8	4822 117 11297	100kΩ 5% 0.1W
3ID9	3198 031 01520	1.2kΩ 5% 0.01W 0402
3IDA▲	5322 117 11726	10Ω 5%
3IDB▲	5322 117 11726	10Ω 5%
3IE1▲	4822 117 13574	1.5Ω 5% 1206
3IE2	4822 051 30101	100Ω 5% 0.062W
3IE3	4822 051 30101	100Ω 5% 0.062W
3IE4	3198 031 01220	1.2kΩ 5% 0.01W 0402
3IE4	4822 117 13548	1kΩ 5% 0402
3IE5	4822 117 11297	100kΩ 5% 0.1W
3IE6	3198 031 03930	39kΩ 5% 0402
3IE7	3198 031 01090	10Ω 5% 0.01W 0402
3IE8	3198 031 01520	1.2kΩ 5% 0.01W 0402
3IE9	4822 117 13601	22kΩ 5% 0402
3IEF	4822 117 13602	2.2kΩ 5% 0.01W 0402
3IEG	3198 031 01220	1.2kΩ 5% 0.01W 0402
3IEH	3198 031 04720	4.7kΩ 5% 0402
3IEI	3198 031 04720	4.7kΩ 5% 0402
3IEJ	3198 031 03390	33Ω 1% 0402
3IEL	3198 031 04720	4.7kΩ 5% 0402
3IEM	3198 031 04720	4.7kΩ 5% 0402
3IEN	4822 117 13545	100Ω 1% 0402
3IEP	4822 117 13545	100Ω 1% 0402
3IER	3198 031 02290	22Ω 5% 0.1W 0402
3IF5	4822 117 13601	22kΩ 5% 0402
3IF6	4822 051 30101	100Ω 5% 0.062W
3IF7	4822 051 30101	100Ω 5% 0.062W
3IG0	3198 031 05610	560Ω 5% 0.01W 0402
3IG1	3198 031 01090	10Ω 5% 0.01W 0402
3IG2	4822 117 13548	1kΩ 5% 0402
3IG3	3198 031 05610	560Ω 5% 0.01W 0402
3IG4	3198 031 01090	10Ω 5% 0.01W 0402
3IG5	3198 031 01090	10Ω 5% 0.01W 0402
3IG6	3198 031 05610	560Ω 5% 0.01W 0402
3IG7	3198 031 01090	10Ω 5% 0.01W 0402
3IG8	3198 031 01090	10Ω 5% 0.01W 0402
3IH1	3198 031 04730	47Ω 5% 0402
3IH3	3198 031 03920	3.9kΩ 5% 0402
3IH5	4822 117 13545	100Ω 1% 0402
3IH6	4822 117 13596	220Ω 5% 0.01W 0402
3IH7	3198 031 01220	1.2kΩ 5% 0.01W 0402
3IH8	3198 031 04730	47Ω 5% 0402
3IHA	4822 117 13545	100Ω 1% 0402
3IHB	4822 117 13545	100Ω 1% 0402
3IHC	4822 117 13545	100Ω 1% 0402
3IHD	4822 117 13545	100Ω 1% 0402
3IHE	4822 117 13545	100Ω 1% 0402
3II0	4822 117 13606	10kΩ 5% 0.01W 0402
3II1	4822 117 13601	22kΩ 5% 0402
3II2	4822 117 13601	22kΩ 5% 0402
3II3	3198 031 04730	47Ω 5% 0402
3II5	4822 117 13606	10kΩ 5% 0.01W 0402
3II6	4822 117 13601	22kΩ 5% 0402
3II7	4822 117 13601	22kΩ 5% 0402
3II8	4822 117 13548	1kΩ 5% 0402
3II9	4822 117 13548	1kΩ 5% 0402
3IJ0	4822 117 13545	100Ω 1% 0402
3IJ1	4822 117 13545	100Ω 1% 0402
3IJ9	4822 117 13548	1kΩ 5% 0402
3IK0	4822 117 13548	1kΩ 5% 0402
3IK2	4822 117 13601	22kΩ 5% 0402
3IK3	4822 117 13601	22kΩ 5% 0402
3IK6	4822 117 13602	2.2kΩ 5% 0.01W 0402
3IK7▲	4822 117 11152	4.7Ω 5%
3IL1	3198 031 01220	1.2kΩ 5% 0.01W 0402
3IL2	4822 117 13548	1kΩ 5% 0402
3IL5	3198 031 02710	270Ω 5% 0.1W 0402
3IL6	4822 117 13545	100Ω 1% 0402
3IL8	4822 117 13548	1kΩ 5% 0402
3IL9	4822 117 13548	1kΩ 5% 0402
3IM2	3198 031 05610	560Ω 5% 0.01W 0402
3IM3	3198 031 05610	560Ω 5% 0.01W 0402
3IM4	3198 031 01520	1.2kΩ 5% 0.01W 0402
3IM6	4822 117 13548	1kΩ 5% 0402
3IM7	4822 117 13545	100Ω 1% 0402
3IM8	4822 117 13596	220Ω 5% 0.01W 0402
3IMA	3198 031 05630	56kΩ 5% 0402
3IMA	4822 117 11297	100kΩ 5% 0.1W
3IMB	3198 031 05630	56kΩ 5% 0402
3IMB	4822 117 11297	100kΩ 5% 0.1W
3IMC	4822 117 13548	1kΩ 5% 0402
3IMD	4822 117 11297	100kΩ 5% 0.1W
3IME	3198 031 05630	56kΩ 5% 0402
3IMF	4822 117 13548	1kΩ 5% 0402
3IMG	4822 117 11297	100kΩ 5% 0.1W
3IMH	3198 031 05630	56kΩ 5% 0402
3IMK	4822 117 13548	1kΩ 5% 0402
3IML	4822 117 11297	100kΩ 5% 0.1W
3IMM	3198 031 05630	56kΩ 5% 0402
3IMN	4822 117 13548	1kΩ 5% 0402
3IMP	4822 117 11297	100kΩ 5% 0.1W
3IMQ	3198 031 05630	56kΩ 5% 0402
3IMR	3198 031 05630	56kΩ 5% 0402
3IMR	4822 117 13548	1kΩ 5% 0402
3IMS	4822 117 11297	100kΩ 5% 0.1W
3IMS	4822 117 13548	1kΩ 5% 0402
3IMT	3198 031 05630	56kΩ 5% 0402
3IMT	4822 117 11297	100kΩ 5% 0.1W
3IMU	4822 117 13548	1kΩ 5% 0402
3IMV	3198 031 05630	56kΩ 5% 0402
3IMW	4822 117 13548	1kΩ 5% 0402
3IN4▲	4822 117 11748	Fuse 2.2Ω 5% 1206
3IN5	4822 117 13601	22kΩ 5% 0402
3IN6	4822 117 13601	22kΩ 5% 0402
3IN7	3198 031 03930	39kΩ 5% 0402
3IN8	3198 031 01090	10Ω 5% 0.01W 0402
3IN9	4822 117 11297	100kΩ 5% 0.1W
3INK	4822 117 13548	1kΩ 5% 0402
3IO5	4822 117 13606	10kΩ 5% 0.01W 0402
3IO6	4822 117 13606	10kΩ 5% 0.01W 0402
3IQ5	3198 031 04730	47Ω 5% 0402
3IQ6	4822 117 13545	100Ω 1% 0402
3IQ7	4822 117 13545	100Ω 1% 0402
3IR0	3198 031 08210	820Ω 5% 0.5W
3IR1	3198 031 01510	150Ω 5% 0.01W 0402
3IR2	3198 031 04720	4.7kΩ 5% 0402
3IR3	3198 031 04720	4.7kΩ 5% 0402
3IR5	3198 031 03390	33Ω 1% 0402
3IR6	3198 031 03390	33Ω 1% 0402
3IR7	2322 706 73901	390Ω 1% 0402
3IR9	2322 706 71201	120Ω 1% 0402
3IS0	2322 706 71201	120Ω 1% 0402
3IS1	2322 706 71201	120Ω 1% 0402
3IS2	4822 051 30101	100Ω 5% 0.062W
3IS5	2322 706 71201	120Ω 1% 0402
3IS7	4822 117 13543	470Ω 5% 0402
3IS8	4822 117 13545	100Ω 1% 0402
3IS9	4822 117 13545	100Ω 1% 0402
3IT0	3198 031 04730	47Ω 5% 0402
3IT1	3198 031 04730	47Ω 5% 0402
3IT4	3198 031 04730	47Ω 5% 0402
3IT5	2322 706 71201	120Ω 1% 0402
3IT6	2322 706 71201	120Ω 1% 0402
3IT7	4822 117 13548	1kΩ 5% 0402
3IT8	4822 117 13548	1kΩ 5% 0402
3IU0▲	4822 117 11748	Fuse 2.2Ω 5% 1206
3IU4	4822 117 13543	470Ω 5% 0402
3IW6	3198 031 04720	4.7kΩ 5% 0402
3IY1	3198 031 01820	1.8kΩ 5% 0.01W 0402
3IY1	4822 117 13548	1kΩ 5% 0402
3IY2	4822 117 11297	100kΩ 5% 0.1W

3IY3	3198 031 05610	560Ω 5% 0.01W 0402
3IY3	3198 031 06810	680Ω 5% 0.01W 0402
3IY4	3198 031 05610	560Ω 5% 0.01W 0402
3IY5	3198 031 03930	39kΩ 5% 0402
3IY6	3198 031 02710	270Ω 5% 0.1W 0402
3IY7	4822 051 30101	100Ω 5% 0.062W
3L03	4822 117 13545	100Ω 1% 0402
3L04	4822 117 13545	100Ω 1% 0402
3L05	4822 117 13545	100Ω 1% 0402
3L06	4822 117 13545	100Ω 1% 0402
3L08	3198 031 02720	2.7kΩ 5% 0.01W 0402
3L11	4822 117 13545	100Ω 1% 0402
3L12	4822 117 13543	470Ω 5% 0402
3L28	4822 117 13543	470Ω 5% 0402
3L29	3198 031 01510	150Ω 5% 0.01W 0402
3L29	3198 031 02290	22Ω 5% 0.1W 0402
3L30	3198 031 01510	150Ω 5% 0.01W 0402
3L30	3198 031 02290	22Ω 5% 0.1W 0402
3L31	3198 031 01510	150Ω 5% 0.01W 0402
3L31	3198 031 02290	22Ω 5% 0.1W 0402
3L32	4822 117 13543	470Ω 5% 0402
3L33	4822 117 13543	470Ω 5% 0402
3P00▲	4822 117 11748	Fuse 2.2Ω 5% 1206
3P01▲	4822 117 11748	Fuse 2.2Ω 5% 1206
3P02▲	4822 117 11151	1Ω 5%
3P03	3198 031 08220	8.2kΩ 5% 0.5W
3P04	3198 031 01830	18kΩ 5% 0.01W 0402
3P05	4822 117 13601	22kΩ 5% 0402
3P06	4822 117 13545	100Ω 1% 0402
3P09	3198 031 04720	4.7kΩ 5% 0402
3P11	4822 117 13545	100Ω 1% 0402
3P11	4822 117 13546	47Ω 5% 0402
3P12	3198 031 02720	2.7kΩ 5% 0.01W 0402
3P13	3198 031 05620	5.6kΩ 5% 0.01W 0402
3P14	3198 031 05620	5.6kΩ 5% 0.01W 0402
3P15	3198 031 05620	5.6kΩ 5% 0.01W 0402
3P17	3198 031 02720	2.7kΩ 5% 0.01W 0402
3P19	3198 031 03920	3.9kΩ 5% 0402
3P20	3198 031 05620	5.6kΩ 5% 0.01W 0402
3P22	4822 117 13545	100Ω 1% 0402
3P23	4822 117 13545	100Ω 1% 0402
3P24	3198 031 01530	15kΩ 5% 0.01W 0402
3P25	3198 031 03910	390Ω 1% 0402
3P26	4822 117 13543	470Ω 5% 0402
3P27	3198 031 01810	180Ω 5% 0402
3P28	3198 031 03910	390Ω 1% 0402
3P29	4822 117 11297	100kΩ 5% 0.1W
3P30	4822 117 13545	100Ω 1% 0402
3P31	4822 117 13543	470Ω 5% 0402
3P32	4822 117 13543	470Ω 5% 0402
3P33	4822 117 13548	1kΩ 5% 0402
3P34	4822 117 13546	47Ω 5% 0402
3P35	4822 117 13543	470Ω 5% 0402
3P36	4822 117 13548	1kΩ 5% 0402
3P40	4822 117 13605	Jumper 0402
3P44	4822 117 13545	100Ω 1% 0402
3P48	4822 117 13545	100Ω 1% 0402
3P49	3198 031 03910	390Ω 1% 0402
3P56	3198 031 01090	10Ω 5% 0.01W 0402
3P57	3198 031 06810	680Ω 5% 0.01W 0402
3P60	3198 031 06810	680Ω 5% 0.01W 0402
3P61	3198 031 02730	27kΩ 5% 0402
3P62	3198 031 01090	10Ω 5% 0.01W 0402
3P63	3198 031 06810	680Ω 5% 0.01W 0402
3P64	3198 031 04720	4.7kΩ 5% 0402
3P65	4822 117 13545	100Ω 1% 0402
3P66	4822 117 13545	100Ω 1% 0402
3P67	3198 031 04720	4.7kΩ 5% 0402
3P68	3198 031 04720	4.7kΩ 5% 0402
3P69	3198 031 04720	4.7kΩ 5% 0402
3P70	3198 031 04720	4.7kΩ 5% 0402
3P72	3198 031 04720	4.7kΩ 5% 0402
3P74▲	4822 117 11748	Fuse 2.2Ω 5% 1206
3P75	4822 117 13545	100Ω 1% 0402
3P76	3198 031 01090	10Ω 5% 0.01W 0402
3P85	3198 031 04720	4.7kΩ 5% 0402
3P86	4822 117 13606	10kΩ 5% 0.01W 0402
3P87	4822 117 13606	10kΩ 5% 0.01W 0402
3P88▲	2322 750 63908	3.9Ω 5% Fuse 1206
3P93	3198 031 06810	680Ω 5% 0.01W 0402
3P96	3198 031 04720	4.7kΩ 5% 0402
3P97	3198 031 04720	4.7kΩ 5% 0402
3P98	3198 031 01090	10Ω 5% 0.01W 0402
3P99	3198 031 06810	680Ω 5% 0.01W 0402
3PA0	4822 117 13596	220Ω 5% 0.01W 0402
3PA1	4822 117 13545	100Ω 1% 0402
3PA3	4822 117 13545	100Ω 1% 0402
3PA7	4822 117 13545	100Ω 1% 0402
3PA8	4822 117 13596	220Ω 5% 0.01W 0402
3PA9	3198 031 03930	39kΩ 5% 0402
3PB2	3198 031 01520	1.2kΩ 5% 0.01W 0402
3PB4	3198 031 01520	1.2kΩ 5% 0.01W 0402
3PB6	3198 031 01220	1.2kΩ 5% 0.01W 0402
3PB7	4822 117 13545	100Ω 1% 0402
3PB8	3198 031 01820	1.8kΩ 5% 0.01W 0402
3PB9	3198 031 03320	3.3kΩ 5% 0402
3PC0	3198 031 03320	3.3kΩ 5% 0402
3PC1	4822 117 13545	100Ω 1% 0402
3PC2	4822 117 13545	100Ω 1% 0402
3PC4	3198 031 06810	680Ω 5% 0.01W 0402
3PC5	3198 031 04720	4.7kΩ 5% 0402
3PC6	3198 031 03930	39kΩ 5% 0402
3PC7	4822 117 13596	220Ω 5% 0.01W 0402
3PC8	4822 117 13545	100Ω 1% 0402
3PD0	4822 117 13596	220Ω 5% 0.01W 0402
3PD2	4822 117 13545	100Ω 1% 0402
3PD3	3198 031 01820	1.8kΩ 5% 0.01W 0402
3PD5	3198 031 03320	3.3kΩ 5% 0402
3PD7	3198 031 01220	1.2kΩ 5% 0.01W 0402
3PD8	3198 031 03320	3.3kΩ 5% 0402
3PD9	3198 031 03320	3.3kΩ 5% 0402
3PE0	3198 031 01520	1.2kΩ 5% 0.01W 0402
3PE2	3198 031 01520	1.2kΩ 5% 0.01W 0402
3PF0	3198 031 01210	120Ω 5% 0.01W 0402
3PF1	3198 031 01520	1.2kΩ 5% 0.01W 0402
3PF2	3198 031 02710	270Ω 5% 0.1W 0402
3PF3	3198 031 03320	3.3kΩ 5% 0402
3PF4	4822 117 13601	22kΩ 5% 0402
3PF5	4822 117 13548	1kΩ 5% 0402
3PF6	3198 031 05610	560Ω 5% 0.01W 0402
3PF7	4822 117 13543	470Ω 5% 0402
3PF8	3198 031 08210	820Ω 5% 0.5W
3PF9	3198 031 01210	120Ω 5% 0.01W 0402
3PG0	3198 031 05610	560Ω 5% 0.01W 0402
3PG1	3198 031 06890	68Ω 5% 0402
3PG2	3198 031 06810	680Ω 5% 0.01W 0402
3PG3	3198 031 06810	680Ω 5% 0.01W 0402
3PG4	3198 031 06810	680Ω 5% 0.01W 0402
3PG5	3198 031 06810	680Ω 5% 0.01W 0402
3PG6	3198 031 06810	680Ω 5% 0.01W 0402
3PG7	3198 031 04720	4.7kΩ 5% 0402
3PG8	4822 117 13548	1kΩ 5% 0402
3PH2	4822 117 13546	47Ω 5% 0402
3PH3	4822 117 13546	47Ω 5% 0402
3PH4	4822 117 13546	47Ω 5% 0402
3PH5	4822 117 13546	47Ω 5% 0402
3PH6	4822 117 13546	47Ω 5% 0402
3PH7	4822 117 13546	47Ω 5% 0402
3PH8	4822 117 13546	47Ω 5% 0402
3PH9	4822 117 13546	47Ω 5% 0402
3PI0	4822 117 13546	47Ω 5% 0402
3PJ0	3198 031 01090	10Ω 5% 0.01W 0402
3PJ1	3198 031 06810	680Ω 5% 0.01W 0402
3PJ2	4822 117 13597	330Ω 5% 0.01W 0402
3PJ3	3198 031 01210	120Ω 5% 0.01W 0402
3PJ4	3198 031 06810	680Ω 5% 0.01W 0402
3PJ5	3198 031 08210	820Ω 5% 0.5W
3PJ7	4822 117 13602	2.2kΩ 5% 0.01W 0402
3PJ8	3198 031 01820	1.8kΩ 5% 0.01W 0402
3PJ9	3198 031 04720	4.7kΩ 5% 0402
3U01	4822 051 30102	1kΩ 5% 0.062W
3U02	4822 117 13548	1kΩ 5% 0402
3U03	4822 117 13603	33kΩ 5% 0402
3U04	4822 051 20121	120Ω 5% 0.1W
3U05	4822 117 13548	1kΩ 5% 0402
3U06	4822 117 13543	470Ω 5% 0402
3U07	3198 031 02290	22Ω 5% 0.1W 0402
3U08	2322 706 71502	1.5kΩ 1% 0402
3U09	3198 031 05620	5.6kΩ 5% 0.01W 0402
3U10	4822 117 13596	220Ω 5% 0.01W 0402
3U11	4822 051 30121	120Ω 5% 0.062W
3U12	4822 117 13601	22kΩ 5% 0402
3U13	4822 117 13606	10kΩ 5% 0.01W 0402
3U14	4822 051 30102	1kΩ 5% 0.062W
3U15	2322 706 73302	3.3kΩ 1% 0402
3U16	3198 031 01210	120Ω 5% 0.01W 0402
3U17	3198 031 04780	4.7Ω 5% 0402
3U18	2322 706 71002	1kΩ 1% 0402
3U19	3198 031 04720	4.7kΩ 5% 0402
3U20	2322 706 71002	1kΩ 1% 0402
3U21	3198 031 04730	47Ω 5% 0402
3U22	3198 031 02710	270Ω 5% 0.1W 0402
3U23	3198 031 01090	10Ω 5% 0.01W 0402
3U24	4822 117 13601	22kΩ 5% 0402
3U25	3198 031 02240	220kΩ 5% 0.1W 0402
3U26	4822 117 13601	22kΩ 5% 0402
3U27	4822 117 13601	22kΩ 5% 0402
3U28	3198 031 04730	47Ω 5% 0402
3U29	4822 051 30109	10Ω 5% 0.062W
3U30	4822 051 20121	120Ω 5% 0.1W
3U31	4822 051 20121	120Ω 5% 0.1W
3U32	3198 031 01830	18kΩ 5% 0.01W 0402
3U33	4822 117 13606	10kΩ 5% 0.01W 0402
3U34	3198 031 04740	470kΩ 5% 0402
3U35	4822 117 13606	10kΩ 5% 0.01W 0402
3U36	4822 117 13602	2.2kΩ 5% 0.01W 0402
3U37	4822 117 13601	22kΩ 5% 0402
3U38	4822 117 13602	2.2kΩ 5% 0.01W 0402
3U39	4822 117 13601	22kΩ 5% 0402
3U40	3198 031 01540	150kΩ 5% 0402
3U41	4822 117 13548	1kΩ 5% 0402
3U42	4822 117 13606	10kΩ 5% 0.01W 0402
3U43	4822 117 13601	22kΩ 5% 0402
3U44	3198 031 01050	1MΩ 5% 0402
3U45	3198 031 01050	1MΩ 5% 0402
3U46	2322 706 74703	47kΩ 1% 0402
3U51	9965 000 23109	22Ω 5% 0603
3U52	4822 051 30102	1kΩ 5% 0.062W
3U53	3198 031 01830	18kΩ 5% 0.01W 0402
3U54	4822 117 13545	100Ω 1% 0402
3U55	4822 051 30102	1kΩ 5% 0.062W
3U56	3198 031 04720	4.7kΩ 5% 0402
3U57	4822 117 13606	10kΩ 5% 0.01W 0402
3U60	4822 117 13548	1kΩ 5% 0402
3U61	4822 117 13606	10kΩ 5% 0.01W 0402
3U62	4822 117 13548	1kΩ 5% 0402
3U63	4822 117 13602	2.2kΩ 5% 0.01W 0402
3U64	4822 117 13548	1kΩ 5% 0402
3U65	4822 117 13548	1kΩ 5% 0402
3U66	4822 117 13606	10kΩ 5% 0.01W 0402
3U67	4822 117 13545	100Ω 1% 0402
3U68	4822 117 13606	10kΩ 5% 0.01W 0402
3U69	4822 117 13548	1kΩ 5% 0402
3U70	4822 051 30102	1kΩ 5% 0.062W
3V01	3198 031 01810	180Ω 5% 0402
3V02	3198 031 01810	180Ω 5% 0402
3V17	3198 031 01810	180Ω 5% 0402
3V19	3198 031 01810	180Ω 5% 0402
3V20	3198 031 01810	180Ω 5% 0402
3V21	2350 033 11689	4x 68Ω 5% Netw.
3V22	2350 033 11689	4x 68Ω 5% Netw.
3V23	2350 033 11689	4x 68Ω 5% Netw.
3V24	2350 033 11689	4x 68Ω 5% Netw.
3V25	3198 031 01810	180Ω 5% 0402
3V26	3198 031 01810	180Ω 5% 0402
3V27	3198 031 01810	180Ω 5% 0402
3V28	3198 031 01810	180Ω 5% 0402
3V29	3198 031 01810	180Ω 5% 0402
3V30	3198 031 01810	180Ω 5% 0402
3V31	3198 031 01810	180Ω 5% 0402
3V32	3198 031 01810	180Ω 5% 0402
3V33	3198 031 01810	180Ω 5% 0402
3V34	3198 031 01810	180Ω 5% 0402
3V35	4822 117 13545	100Ω 1% 0402
3V36	4822 117 13545	100Ω 1% 0402
3V37	4822 117 13545	100Ω 1% 0402
3V38	4822 117 13545	100Ω 1% 0402
3V39	3198 031 04720	4.7kΩ 5% 0402
3V40	4822 117 13545	100Ω 1% 0402
3V50	4822 117 13606	10kΩ 5% 0.01W 0402
3V51	4822 117 13606	10kΩ 5% 0.01W 0402
3V52	4822 117 13602	2.2kΩ 5% 0.01W 0402
3V52	4822 117 13606	10kΩ 5% 0.01W 0402
3V53	4822 117 13602	2.2kΩ 5% 0.01W 0402
3V53	4822 117 13606	10kΩ 5% 0.01W 0402
3V54	4822 117 13606	10kΩ 5% 0.01W 0402
3V55	4822 117 13606	10kΩ 5% 0.01W 0402
3V56	4822 117 13545	100Ω 1% 0402
3Y04	4822 117 13602	2.2kΩ 5% 0.01W 0402
3Y05	4822 117 13545	100Ω 1% 0402
3Y07▲	4822 117 11151	1Ω 5%
3Y08	3198 031 03320	3.3kΩ 5% 0402
3Y09	4822 117 13545	100Ω 1% 0402
3Y10	4822 117 13545	100Ω 1% 0402
3Y11	4822 117 13545	100Ω 1% 0402
3Y12	4822 117 13545	100Ω 1% 0402
3Y14	3198 031 04720	4.7kΩ 5% 0402
3Y15	4822 117 13606	10kΩ 5% 0.01W 0402
3Y16	3198 031 04720	4.7kΩ 5% 0402
3Y17	4822 117 13545	100Ω 1% 0402
3Y18	4822 117 13545	100Ω 1% 0402
3Y19	4822 117 13545	100Ω 1% 0402
3Y20	3198 031 06890	68Ω 5% 0402
3Y21	3198 031 06890	68Ω 5% 0402
3Y22	3198 031 06890	68Ω 5% 0402
3Y23	3198 031 06890	68Ω 5% 0402
3Y24	4822 117 11297	100kΩ 5% 0.1W
3Y25	4822 117 13545	100Ω 1% 0402
3Y30	3198 031 05620	5.6kΩ 5% 0.01W 0402
3Y34	4822 117 13545	100Ω 1% 0402
3Y35	4822 117 13545	100Ω 1% 0402
3Y36	4822 117 13545	100Ω 1% 0402
3Y37	3198 031 04720	4.7kΩ 5% 0402
3Y38	4822 117 13602	2.2kΩ 5% 0.01W 0402
3Y39	4822 117 13606	10kΩ 5% 0.01W 0402
3Y40	4822 117 13545	100Ω 1% 0402
3Z37	4822 117 13606	10kΩ 5% 0.01W 0402
3Z50	4822 117 13545	100Ω 1% 0402
3Z51	4822 117 13545	100Ω 1% 0402
3Z54	4822 117 13545	100Ω 1% 0402
9001	4822 117 13605	Jumper 0402
9002	4822 117 13605	Jumper 0402

9007	4822 117 13605	Jumper 0402
9010	4822 117 13605	Jumper 0402
9011	4822 117 13605	Jumper 0402
9012	4822 117 13605	Jumper 0402
9013	4822 117 13605	Jumper 0402
9014	4822 051 30008	Jumper 0603
9014	4822 117 13605	Jumper 0402
9023	4822 117 13605	Jumper 0402
9024	4822 117 13605	Jumper 0402
9316	4822 117 13605	Jumper 0402
9322	4822 117 13605	Jumper 0402
9401	4822 117 13605	Jumper 0402
9402	4822 117 13605	Jumper 0402
9403	4822 117 13605	Jumper 0402
9405	4822 117 13605	Jumper 0402
9410	4822 117 13605	Jumper 0402
9413	4822 117 13605	Jumper 0402
9415	4822 117 13605	Jumper 0402
9416	4822 117 13605	Jumper 0402
9417	4822 117 13605	Jumper 0402
9419	4822 117 13605	Jumper 0402
9423	4822 117 13605	Jumper 0402
9424	4822 117 13605	Jumper 0402
9425	4822 117 13605	Jumper 0402
9426	4822 117 13605	Jumper 0402
9427	4822 117 13545	100Ω 1% 0402
9428	4822 117 13605	Jumper 0402
9702	4822 117 13605	Jumper 0402
9704	4822 117 13605	Jumper 0402
9706	4822 117 13605	Jumper 0402
9707	2238 869 15189	18pF 5% 50V 0402
9707	4822 117 13605	Jumper 0402
9708	2238 869 15189	18pF 5% 50V 0402
9708	4822 117 13605	Jumper 0402
9709	2238 869 15189	18pF 5% 50V 0402
9709	4822 117 13605	Jumper 0402
9710	4822 117 13605	Jumper 0402
9713	4822 117 13605	Jumper 0402
9714	4822 117 13605	Jumper 0402
9715	4822 117 13605	Jumper 0402
9716	4822 117 13605	Jumper 0402
9717	4822 117 13605	Jumper 0402
9718	4822 117 13605	Jumper 0402
9720	4822 117 13605	Jumper 0402
9721	4822 117 13605	Jumper 0402
9722	4822 117 13605	Jumper 0402
9723	4822 117 13605	Jumper 0402
9727	4822 117 13605	Jumper 0402
9728	4822 117 13605	Jumper 0402
9730	4822 117 13605	Jumper 0402
9732	4822 117 13605	Jumper 0402
9751	4822 117 13605	Jumper 0402
9752	4822 117 13605	Jumper 0402
9753	4822 117 13605	Jumper 0402
9754	4822 117 13605	Jumper 0402
9755	4822 117 13605	Jumper 0402
9756	4822 117 13605	Jumper 0402
9757	4822 117 13605	Jumper 0402
9758	4822 117 13605	Jumper 0402
9760	4822 117 13605	Jumper 0402
9761	4822 117 13605	Jumper 0402
9762	4822 117 13605	Jumper 0402
9763	4822 117 13605	Jumper 0402
9765	4822 117 13605	Jumper 0402
9766	4822 117 13605	Jumper 0402
9772	4822 117 13605	Jumper 0402
9773	4822 117 13605	Jumper 0402
9774	4822 117 13605	Jumper 0402
9775	4822 117 13605	Jumper 0402
9776	4822 117 13605	Jumper 0402
9777	4822 117 13605	Jumper 0402
9800	4822 117 13605	Jumper 0402
9801	4822 117 13605	Jumper 0402
9802	4822 117 13605	Jumper 0402
9803	4822 117 13605	Jumper 0402
9804	4822 117 13605	Jumper 0402
9805	4822 117 13605	Jumper 0402
9806	4822 117 13605	Jumper 0402
9808	4822 117 13605	Jumper 0402
9809	4822 117 13605	Jumper 0402
9811	4822 117 13605	Jumper 0402
9812	4822 117 13605	Jumper 0402
9815	4822 117 13605	Jumper 0402
9816	4822 117 13605	Jumper 0402
9817	4822 117 13605	Jumper 0402
9818	4822 117 13605	Jumper 0402
9820	4822 117 13605	Jumper 0402
9821	4822 117 13605	Jumper 0402
9822	4822 117 13605	Jumper 0402
9823	3198 031 06890	68Ω 5% 0402
9825	4822 117 13605	Jumper 0402
9826	4822 117 13605	Jumper 0402
9827	4822 117 13605	Jumper 0402
9A02	4822 117 13605	Jumper 0402
9A03	4822 117 13605	Jumper 0402
9A07	4822 117 13605	Jumper 0402
9A10	4822 117 13605	Jumper 0402
9A11	4822 117 13605	Jumper 0402
9A12	4822 117 13605	Jumper 0402
9A13	4822 117 13605	Jumper 0402
9A14	4822 117 13605	Jumper 0402
9A15	4822 117 13605	Jumper 0402
9A16	4822 117 13605	Jumper 0402
9A17	4822 117 13605	Jumper 0402
9A22	4822 117 13605	Jumper 0402
9A65	4822 117 13605	Jumper 0402
9A74	4822 117 13605	Jumper 0402
9A75	4822 117 13605	Jumper 0402
9C02	4822 117 13605	Jumper 0402
9E60	4822 117 13605	Jumper 0402
9E62	4822 117 13605	Jumper 0402
9E65	4822 117 13605	Jumper 0402
9E66	4822 117 13605	Jumper 0402
9E67	4822 117 13605	Jumper 0402
9E68	4822 117 13605	Jumper 0402
9E69	4822 117 13605	Jumper 0402
9E70	4822 117 13605	Jumper 0402
9E71	4822 117 13605	Jumper 0402
9E72	4822 117 13605	Jumper 0402
9E73	4822 117 13605	Jumper 0402
9E74	4822 117 13605	Jumper 0402
9E76	4822 117 13605	Jumper 0402
9E77	4822 117 13605	Jumper 0402
9I00	4822 117 13605	Jumper 0402
9I01	4822 117 13605	Jumper 0402
9I02	4822 117 13605	Jumper 0402
9I03	4822 117 13605	Jumper 0402
9I15	4822 117 13605	Jumper 0402
9I48	4822 117 13605	Jumper 0402
9I55	4822 117 13605	Jumper 0402
9I56	4822 117 13605	Jumper 0402
9I68	4822 117 13605	Jumper 0402
9I70	4822 117 13605	Jumper 0402
9I73	4822 117 13605	Jumper 0402
9I74	4822 117 13605	Jumper 0402
9I75	4822 117 13605	Jumper 0402
9I86	4822 117 13605	Jumper 0402
9IA1	2022 552 05679	1µF 10% 16V 0805
9IA3	2022 552 05679	1µF 10% 16V 0805
9IA5	4822 117 13605	Jumper 0402
9IB6	4822 117 13605	Jumper 0402
9ID0	4822 117 13605	Jumper 0402
9ID1	4822 117 13605	Jumper 0402
9ID3	4822 117 13605	Jumper 0402
9ID5	4822 117 13605	Jumper 0402
9ID8	4822 117 13605	Jumper 0402
9ID9	4822 117 13605	Jumper 0402
9IZZ	4822 117 13605	Jumper 0402
9P01	4822 117 13605	Jumper 0402
9P02	4822 117 13605	Jumper 0402
9P03	4822 117 13605	Jumper 0402
9P04	4822 117 13605	Jumper 0402
9P07	4822 117 13605	Jumper 0402
9P10	4822 117 13605	Jumper 0402
9P11	4822 117 13605	Jumper 0402
9P12	4822 117 13605	Jumper 0402
9P13	4822 117 13605	Jumper 0402
9P15	4822 117 13605	Jumper 0402
9P16	4822 117 13605	Jumper 0402
9P17	4822 117 13605	Jumper 0402
9P24	4822 117 13605	Jumper 0402
9P28	4822 117 13605	Jumper 0402
9P29	4822 117 13605	Jumper 0402
9P54	4822 117 13605	Jumper 0402
9P69	4822 117 13605	Jumper 0402
9P70	4822 117 13605	Jumper 0402
9P71	4822 117 13605	Jumper 0402
9P73	4822 117 13605	Jumper 0402
9P74	4822 117 13605	Jumper 0402
9P75	4822 117 13605	Jumper 0402
9PA2	4822 117 13605	Jumper 0402
9PA7	4822 117 13605	Jumper 0402
9PB1	4822 117 13605	Jumper 0402
9PB2	4822 117 13605	Jumper 0402
9PB4	4822 117 13605	Jumper 0402
9PB5	4822 117 13605	Jumper 0402
9PB8	4822 117 13605	Jumper 0402
9T01	4822 117 13601	22kΩ 5% 0402
9T02	4822 117 13601	22kΩ 5% 0402
9T04	4822 117 13605	Jumper 0402
9T06	4822 117 13605	Jumper 0402
9T07	4822 117 13605	Jumper 0402
9T08	4822 117 13605	Jumper 0402
9T09	4822 117 13605	Jumper 0402
9T10	4822 117 13605	Jumper 0402
9T12	4822 117 13605	Jumper 0402
9T14	4822 117 13605	Jumper 0402
9T50	4822 117 13605	Jumper 0402
9Y00	3198 031 01090	10Ω 5% 0.01W 0402
9Y00	4822 117 13605	Jumper 0402
9Y03	4822 117 13605	Jumper 0402
9Y05	4822 117 13605	Jumper 0402
9Y06	4822 117 13605	Jumper 0402
9Y09	4822 117 13605	Jumper 0402
9Y13	4822 117 13605	Jumper 0402
9Y14	4822 117 13605	Jumper 0402
9Y15	4822 117 13605	Jumper 0402
9Y16	4822 117 13605	Jumper 0402
9Y99	4822 320 12423	Speaker cable

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5003	2422 549 43769	Bead 30Ω at 100MHz
5003	4822 157 11716	Bead 30Ω at 100MHz
5402	3198 018 33980	3.9µH 10% 0805
5404	4822 157 11506	Bead 120Ω at 100MHz
5405	4822 157 11506	Bead 120Ω at 100MHz
5406	3198 018 53380	3.3µH 10% 0603
5406	3198 018 56880	6.8µH 10% 0603
5408	2422 549 00232	Trimmer 78MHz 5JKH
5408	2422 549 44983	Trimmer 78MHz 5CCB
5411	3198 018 33370	0.33µH 10% 0805
5416	4822 157 11716	Bead 30Ω at 100MHz
5702	4822 157 11716	Bead 30Ω at 100MHz
5703	4822 157 11716	Bead 30Ω at 100MHz
5705	4822 157 11876	6.8µH 10% 0805
5706	4822 157 11876	6.8µH 10% 0805
5707	4822 157 11876	6.8µH 10% 0805
5708	4822 157 11876	6.8µH 10% 0805
5713	4822 157 11716	Bead 30Ω at 100MHz
5714	4822 157 11716	Bead 30Ω at 100MHz
5719	4822 157 11716	Bead 30Ω at 100MHz
5720	4822 157 11716	Bead 30Ω at 100MHz
5722	4822 157 11716	Bead 30Ω at 100MHz
5723	4822 157 11716	Bead 30Ω at 100MHz
5724	4822 157 11716	Bead 30Ω at 100MHz
5725	4822 157 11716	Bead 30Ω at 100MHz
5726	4822 157 11716	Bead 30Ω at 100MHz
5727	4822 157 11716	Bead 30Ω at 100MHz
5728	4822 157 11716	Bead 30Ω at 100MHz
5750	4822 157 11716	Bead 30Ω at 100MHz
5751	4822 157 11716	Bead 30Ω at 100MHz
5752	4822 157 11716	Bead 30Ω at 100MHz
5753	4822 157 11716	Bead 30Ω at 100MHz
5755	4822 157 11716	Bead 30Ω at 100MHz
5756	4822 157 11716	Bead 30Ω at 100MHz
5757	4822 157 11716	Bead 30Ω at 100MHz
5758	4822 157 11716	Bead 30Ω at 100MHz
5759	4822 157 11716	Bead 30Ω at 100MHz
5760	4822 157 11716	Bead 30Ω at 100MHz
5761	4822 157 11716	Bead 30Ω at 100MHz
5762	4822 157 11716	Bead 30Ω at 100MHz
5763	4822 157 11716	Bead 30Ω at 100MHz
5764	4822 157 11716	Bead 30Ω at 100MHz
5767	4822 157 11716	Bead 30Ω at 100MHz
5768	4822 157 11716	Bead 30Ω at 100MHz
5769	4822 157 11716	Bead 30Ω at 100MHz
5770	4822 157 11716	Bead 30Ω at 100MHz
5771	4822 157 11716	Bead 30Ω at 100MHz
5772	4822 157 11716	Bead 30Ω at 100MHz
5773	4822 157 11716	Bead 30Ω at 100MHz
5775	4822 157 11716	Bead 30Ω at 100MHz
5777	4822 157 11716	Bead 30Ω at 100MHz
5778	4822 157 11876	6.8µH 10% 0805
5800	4822 157 11716	Bead 30Ω at 100MHz
5801	4822 157 11716	Bead 30Ω at 100MHz
5A00	2422 549 44197	Bead 220Ω at 100MHz
5A00	4822 157 11716	Bead 30Ω at 100MHz
5A01	2422 549 44197	Bead 220Ω at 100MHz
5A01	4822 157 11716	Bead 30Ω at 100MHz
5A02	2422 549 44197	Bead 220Ω at 100MHz
5A02	4822 157 11716	Bead 30Ω at 100MHz
5A03	2422 549 44197	Bead 220Ω at 100MHz
5A03	4822 157 11716	Bead 30Ω at 100MHz
5A06	2422 549 44197	Bead 220Ω at 100MHz
5A06	4822 157 11716	Bead 30Ω at 100MHz
5A07	2422 549 44197	Bead 220Ω at 100MHz
5A07	4822 157 11716	Bead 30Ω at 100MHz
5A19	4822 157 11828	22µH 20% 0805
5A38	2422 549 44197	Bead 220Ω at 100MHz
5A38	4822 157 11716	Bead 30Ω at 100MHz
5E00	4822 156 21729	Bead 1kΩ 100MHz 0805
5E01	2422 549 42896	Bead 120Ω 100MHz
5E02	4822 156 21729	Bead 1kΩ 100MHz 0805
5E03	4822 156 21729	Bead 1kΩ 100MHz 0805
5E50	4822 157 11499	Bead 60Ω at 100MHz
5E51	2422 549 42896	Bead 120Ω 100MHz
5E52	2422 549 43062	Bead 600Ω at 100MHz
5E53	2422 536 00779	10µH 20%
5E54	4822 157 11499	Bead 60Ω at 100MHz
5E55	2422 549 43062	Bead 600Ω at 100MHz

5E58	2422 549 43062	Bead 600Ω at 100MHz
5I01	4822 157 11876	6.8µH 10% 0805
5I02	3198 018 90050	Bead 1kΩ at 100MHz
5I02	4822 156 21729	Bead 1kΩ 100MHz 0805
5I11	4822 156 21729	Bead 1kΩ 100MHz 0805
5I12	4822 157 11716	Bead 30Ω at 100MHz
5I13	4822 157 11716	Bead 30Ω at 100MHz
5I22	4822 157 11716	Bead 30Ω at 100MHz
5I30	4822 157 11716	Bead 30Ω at 100MHz
5I31	2422 535 94134	10µH 20% 0805
5I32	4822 157 11716	Bead 30Ω at 100MHz
5I33	4822 157 11716	Bead 30Ω at 100MHz
5I34	4822 157 11716	Bead 30Ω at 100MHz
5I35	4822 157 11716	Bead 30Ω at 100MHz
5I36	4822 157 11892	0.22µH 10% 0805
5I37	4822 157 11892	0.22µH 10% 0805
5I38	4822 157 11892	0.22µH 10% 0805
5I39	4822 157 11716	Bead 30Ω at 100MHz
5I40	4822 157 11716	Bead 30Ω at 100MHz
5I42	4822 156 21729	Bead 1kΩ 100MHz 0805
5I45	4822 157 11716	Bead 30Ω at 100MHz
5I46	4822 157 11716	Bead 30Ω at 100MHz
5I47	4822 157 11716	Bead 30Ω at 100MHz
5I54	4822 157 11716	Bead 30Ω at 100MHz
5I55	4822 157 11716	Bead 30Ω at 100MHz
5L02	3198 018 54770	0.47µF 10% 0603
5L04	3198 018 54770	0.47µF 10% 0603
5L06	3198 018 54770	0.47µF 10% 0603
5L13	4822 156 21729	Bead 1kΩ 100MHz 0805
5L14	4822 156 21729	Bead 1kΩ 100MHz 0805
5L15	4822 156 21729	Bead 1kΩ 100MHz 0805
5L16	4822 157 11716	Bead 30Ω at 100MHz
5L17	4822 157 11716	Bead 30Ω at 100MHz
5L18	4822 157 11716	Bead 30Ω at 100MHz
5P00	4822 157 11716	Bead 30Ω at 100MHz
5P01	4822 157 11716	Bead 30Ω at 100MHz
5P02	3198 018 32770	0.27µH 10% 0805
5P02	3198 018 33370	0.33µH 10% 0805
5P03	4822 157 11716	Bead 30Ω at 100MHz
5P05	3198 018 33980	3.9µH 10% 0805
5P06	3198 018 33380	3.3µH 10% 0805
5P06	4822 157 11876	6.8µH 10% 0805
5P08	2422 549 00232	Trimmer 78MHz 5JKH
5P08	2422 549 44983	Trimmer 78MHz 5CCB
5P09	4822 157 11716	Bead 30Ω at 100MHz
5P10	4822 157 11716	Bead 30Ω at 100MHz
5P51	4822 157 11716	Bead 30Ω at 100MHz
5PA0	4822 157 71694	0.82µH 10%
5PA1	3198 018 31290	12µH 10%
5PA2	4822 157 10977	4.7µH 10%
5PA3	4822 157 10977	4.7µH 10%
5PA4	4822 157 71694	0.82µH 10%
5PA5	3198 018 31290	12µH 10%
5PA6	3198 018 31290	12µH 10%
5PA7	3198 018 31290	12µH 10%
5PA8	3198 018 31290	12µH 10%
5PA9	4822 157 11716	Bead 30Ω at 100MHz
5PB0	4822 157 11716	Bead 30Ω at 100MHz
5T02	4822 157 11716	Bead 30Ω at 100MHz
5T02	4822 157 71206	Bead 600Ω 100MHz
5T03	2422 535 94134	10µH 20% 0805
5T04	4822 157 11716	Bead 30Ω at 100MHz
5T04	4822 157 71206	Bead 600Ω 100MHz
5T20	4822 157 11716	Bead 30Ω at 100MHz
5T20	4822 157 71206	Bead 600Ω 100MHz
5T22	4822 157 11716	Bead 30Ω at 100MHz
5T22	4822 157 71206	Bead 600Ω 100MHz
5T25	2422 535 94134	10µH 20% 0805
5U01	3104 308 20661	Transf. BD13118-02
5U02	2422 536 00779	10µH 20%
5U03	2422 549 44197	Bead 220Ω at 100MHz
5U04	2422 549 44197	Bead 220Ω at 100MHz
5U05	2422 536 00779	10µH 20%
5U06	2422 536 00779	10µH 20%
5Y00	2422 549 44197	Bead 220Ω at 100MHz
5Y00	4822 157 11716	Bead 30Ω at 100MHz
5Y01	2422 549 44197	Bead 220Ω at 100MHz
5Y01	4822 157 11716	Bead 30Ω at 100MHz
5Y02	2422 549 44197	Bead 220Ω at 100MHz
5Y03	2422 549 44197	Bead 220Ω at 100MHz
5Y06	2422 549 44197	Bead 220Ω at 100MHz
5Y06	4822 157 11716	Bead 30Ω at 100MHz
5Y07	2422 549 44197	Bead 220Ω at 100MHz
5Y07	4822 157 11716	Bead 30Ω at 100MHz
5Y09	4822 157 11716	Bead 30Ω at 100MHz
5Y11	2422 549 44197	Bead 220Ω at 100MHz
5Y11	4822 157 11716	Bead 30Ω at 100MHz
5Y12	2422 549 44197	Bead 220Ω at 100MHz
5Y12	4822 157 11716	Bead 30Ω at 100MHz
5Y14	2422 549 44197	Bead 220Ω at 100MHz
5Y14	4822 157 11716	Bead 30Ω at 100MHz
5Y15	2422 549 44197	Bead 220Ω at 100MHz
5Y15	4822 157 11716	Bead 30Ω at 100MHz
5Y16	2422 549 44197	Bead 220Ω at 100MHz
5Y16	4822 157 11716	Bead 30Ω at 100MHz
5Y17	2422 549 44197	Bead 220Ω at 100MHz
5Y17	4822 157 11716	Bead 30Ω at 100MHz
5Y18	2422 549 44197	Bead 220Ω at 100MHz
5Y18	4822 157 11716	Bead 30Ω at 100MHz
5Y19	2422 549 43769	Bead 30Ω at 100MHz
5Y19	2422 549 44197	Bead 220Ω at 100MHz
5Y19	4822 157 11716	Bead 30Ω at 100MHz
5Y20	2422 549 44197	Bead 220Ω at 100MHz
5Y20	4822 157 11716	Bead 30Ω at 100MHz
5Y21	4822 117 10353	150Ω 1% 0.1W
5Y22	4822 117 10353	150Ω 1% 0.1W
5Y23	2422 549 44197	Bead 220Ω at 100MHz
5Y23	4822 157 11716	Bead 30Ω at 100MHz
5Z01	2422 549 45325	Bead 67Ω at 100MHz
5Z02	2422 549 45325	Bead 67Ω at 100MHz
5Z03	2422 549 45325	Bead 67Ω at 100MHz
5Z04	2422 549 45325	Bead 67Ω at 100MHz
5Z05	2422 549 45325	Bead 67Ω at 100MHz

6001	4822 130 80622	BAT54
6003	4822 130 80622	BAT54
6004	4822 130 80622	BAT54
6005	4822 130 11422	PLVA2650A
6006	4822 130 11564	UDZ3.9B
6402	9340 552 30115	BA591
6404	9340 552 30115	BA591
6405	9340 552 30115	BA591
6701	4822 130 11397	BAS316
6702	4822 130 11397	BAS316
6703	4822 130 11397	BAS316
6705	4822 130 11397	BAS316
6710	4822 130 11397	BAS316
6711	4822 130 11397	BAS316
6712	4822 130 11397	BAS316
6713	4822 130 11397	BAS316
6714	4822 130 11397	BAS316
6715	4822 130 11397	BAS316
6716	4822 130 11397	BAS316
6717	4822 130 11397	BAS316
6718	4822 130 11397	BAS316
6719	9322 128 69685	S1D
6720	4822 130 11397	BAS316
6721	4822 130 11397	BAS316
6723	4822 130 11397	BAS316
6A00	4822 130 11551	UDZS10B
6A01	4822 130 11397	BAS316
6A02	9322 159 70685	MM3Z9V1
6E51	4822 130 11397	BAS316
6E52	4822 130 11397	BAS316
6E53	4822 130 11397	BAS316
6E54	4822 130 11397	BAS316
6E55	4822 130 11397	BAS316
6E56	4822 130 11397	BAS316
6I03	4822 130 10328	BAV99W
6I04	4822 130 10328	BAV99W
6I08	4822 130 11423	PLVA2656A
6I09	4822 130 11423	PLVA2656A
6I10	4822 130 11397	BAS316
6I11	4822 130 11397	BAS316
6I12	4822 130 11397	BAS316
6I13	4822 130 11397	BAS316
6I26	4822 130 10328	BAV99W
6I27	4822 130 10328	BAV99W
6I28	4822 130 10328	BAV99W
6I30	4822 130 11416	PDZ6.8B
6I31	4822 130 11416	PDZ6.8B
6I32	4822 130 11416	PDZ6.8B
6I33	4822 130 11416	PDZ6.8B
6I37	4822 130 11416	PDZ6.8B
6I38	4822 130 11416	PDZ6.8B
6I39	4822 130 11416	PDZ6.8B
6I40	4822 130 11416	PDZ6.8B
6I41	4822 130 10328	BAV99W
6I43	4822 130 11416	PDZ6.8B
6I44	4822 130 10328	BAV99W
6I45	4822 130 11416	PDZ6.8B
6I46	4822 130 11416	PDZ6.8B
6I47	4822 130 11416	PDZ6.8B
6I48	4822 130 11416	PDZ6.8B
6I50	4822 130 10328	BAV99W
6I53	4822 130 11416	PDZ6.8B
6I54	4822 130 11416	PDZ6.8B
6I55	4822 130 11416	PDZ6.8B
6I56	4822 130 11416	PDZ6.8B
6I61	4822 130 11416	PDZ6.8B
6I62	4822 130 11416	PDZ6.8B
6I63	4822 130 11397	BAS316
6I64	4822 130 11397	BAS316
6I65	4822 130 11397	BAS316
6I66	4822 130 11397	BAS316
6I69	4822 130 11416	PDZ6.8B
6I70	4822 130 11416	PDZ6.8B
6I71	4822 130 11416	PDZ6.8B
6I72	4822 130 11416	PDZ6.8B
6I73	4822 130 11416	PDZ6.8B
6I74	4822 130 11416	PDZ6.8B
6I75	4822 130 11416	PDZ6.8B
6I76	4822 130 11416	PDZ6.8B
6I78	4822 130 11397	BAS316
6I79	4822 130 11397	BAS316
6I90	4822 130 11416	PDZ6.8B
6I91	4822 130 11416	PDZ6.8B
6I92	4822 130 11416	PDZ6.8B
6I93	4822 130 11416	PDZ6.8B
6I99	4822 130 11422	PLVA2650A
6I99	4822 130 11423	PLVA2656A
6IA7	4822 130 11397	BAS316
6P00	9340 552 30115	BA591
6P01	9340 552 30115	BA591
6P02	9340 552 30115	BA591
6P10	9322 102 64685	UDZ2.7B
6PA1	4822 130 11397	BAS316
6PB1	4822 130 11397	BAS316
6PB2	4822 130 11397	BAS316
6PB3	4822 130 11397	BAS316
6PB4	4822 130 11397	BAS316
6PB5	4822 130 11397	BAS316
6PB6	4822 130 11397	BAS316
6PB7	4822 130 11397	BAS316
6PB8	4822 130 11397	BAS316
6PB9	4822 130 11397	BAS316
6T01	4822 130 11397	BAS316
6T02	4822 130 11397	BAS316
6T03	4822 130 11397	BAS316
6T04	4822 130 11397	BAS316
6T08	9340 548 71115	PDZ33B
6U01	4822 130 11397	BAS316
6U03	4822 130 11397	BAS316
6U04	4822 130 11397	BAS316
6U05	9322 129 41685	BZM55-C12
6U06	9322 203 37685	BZG05C3V9
6U07	4822 130 11416	PDZ6.8B
6U08	4822 130 80622	BAT54
6U09	4822 130 80622	BAT54
6U10	4822 130 11522	UDZ15B
6U11	4822 130 11397	BAS316
6U12	9340 548 52115	PDZ5.1B
6U13	9340 548 58115	PDZ9.1B
6U14	4822 130 10328	BAV99W
6U16	9340 548 52115	PDZ5.1B
6U17	4822 130 11416	PDZ6.8B
6V06	4822 130 10328	BAV99W
6V07	4822 130 10328	BAV99W

7001	9352 684 81557	SAA5801H/015
7002	3198 010 42320	BC857BW
7003	3198 010 42310	BC847BW
7004	3198 010 42310	BC847BW
7005	9322 172 45668	LF33ABDT
7006		For SW see item 0601
7007	9322 200 55668	IS41LV16100-50K
7008	3198 010 42310	BC847BW
7009	3198 010 42310	BC847BW
7010	3198 010 42320	BC857BW
7011	9322 130 41668	M24C64-WMN6
7012	9322 199 93668	M29W400DT-55N6
7013	3198 010 42310	BC847BW
7014	3198 010 42320	BC857BW
7017	9340 310 30215	PDTC144ET
7018	9352 115 40118	74LVC245APW
7019	9352 115 40118	74LVC245APW
7022	3198 010 42320	BC857BW
7320	3198 010 42310	BC847BW
7322	3198 010 42310	BC847BW
7323	9352 625 24518	TDA9321H/N2
7401	3198 010 42310	BC847BW
7402	3198 010 42310	BC847BW
7405	3198 010 42310	BC847BW
7406	3198 010 42310	BC847BW
7407	3198 010 42320	BC857BW
7410	3198 010 42310	BC847BW
7411	3198 010 42310	BC847BW
7414	3198 010 42310	BC847BW
7415	3198 010 42310	BC847BW
7703	3198 010 42310	BC847BW
7705	3198 010 42310	BC847BW
7706	3198 010 70400	74LVC1G14GW
7707	3198 010 42310	BC847BW
7708	3198 010 42310	BC847BW
7709	3198 010 42310	BC847BW
7710	3198 010 42310	BC847BW

7711	2422 486 80938	Socket 32p f PLCC
7711		For SW see item0605
7712	9351 870 00118	74HC573PW
7712	9352 190 20118	74LVC573APW
7713	9352 688 09557	SAA4978H/V204
7714	9965 000 02179	MS81V04160-25TB
7715	4822 209 73852	PMBT2369
7717	4822 209 73852	PMBT2369
7719	9322 206 19672	MSM56V16160F-7T3-FG
7720	9322 211 71702	T6TX5AFG-0001
7725	4822 209 73852	PMBT2369
7752	9322 202 21671	T6TU5XB-0001
7752	9322 204 76671	T6TU5XBG-0001
7753	9322 206 19672	MSM56V16160F-7T3-FG
7760	9352 730 86557	SAA4998H/V1
7772	9322 170 14668	LF15ABDT
7773	9322 179 78668	LF18ABDT
7774	9322 142 88668	LF25CDT
7775	3198 010 42320	BC857BW
7776	3198 010 42320	BC857BW
7777	3198 010 42320	BC857BW
7A00	4822 209 30095	LM833D
7A01	3198 010 42310	BC847BW
7A02	9322 196 03702	MSP3411G-QI-B8V3
7A03	4822 209 30095	LM833D
7A04	4822 130 60373	BC856B
7A06	5322 209 16349	TDA7309D
7A07	9322 183 05668	TS482ID
7A08	9340 425 20115	BC847BS
7A09	4822 130 60373	BC856B
7A11	9322 199 16668	M74HC590T
7A12	9322 199 16668	M74HC590T
7A13	3198 010 42310	BC847BW
7A14	9351 869 90118	74HCT573PW
7A15	9351 869 90118	74HCT573PW
7A16	9322 208 98668	M68AF031AM70N6
7A31	9340 425 20115	BC847BS
7E01	9322 142 88668	LF25CDT
7E02		For SW see item 0602
7E02	9322 210 01668	EPCS4SI8N
7E03	9352 687 21165	74LVC1G126GW
7E04	9352 687 20125	74LVC1G125GW
7E05	9322 170 14668	LF15ABDT
7E10	9352 686 35118	PCA9515DP
7E10	9352 759 98118	PCA9515ADP
7E12	9340 425 20115	BC847BS
7E23	9322 181 72671	AD9883AKST-110
7E23	9322 211 20671	AD9883AKSTZ-110
7E24	9322 205 36668	AD9283BRSZ-50
7E25	3198 010 42320	BC857BW
7E26	3198 010 42320	BC857BW
7E27	3198 010 42320	BC857BW
7I01	9340 425 20115	BC847BS
7I02	9340 425 20115	BC847BS
7I04	3198 010 42310	BC847BW
7I05	9340 425 30115	BC847BPN
7I07	4822 130 60142	BC869
7I09	3198 010 42310	BC847BW
7I10	9352 686 35118	PCA9515DP
7I10	9352 759 98118	PCA9515ADP
7I17	9322 116 87668	TEA6422D
7I17	9322 223 96668	TEA6422D
7I18	9322 199 35671	SII9993CTG100
7I19		For SW see item 0603
7I20	9351 869 40118	74HC4053PW
7I21	9340 425 30115	BC847BPN
7I22	3198 010 42310	BC847BW
7I22	5322 130 60159	BC846B
7I23	9340 425 20115	BC847BS
7I25	9352 724 34118	UDA1352TS/N3
7I26	9340 425 30115	BC847BPN
7I27	9340 425 30115	BC847BPN
7I28	9340 425 30115	BC847BPN
7I29	9340 425 30115	BC847BPN
7I30	9340 425 30115	BC847BPN
7I31	9340 425 30115	BC847BPN
7I33	9351 869 40118	74HC4053PW
7I42	3198 010 42310	BC847BW
7I44	9340 425 20115	BC847BS
7I48	9340 425 10115	BC857BS
7I49	9340 310 30215	PDTC144ET
7I50	9340 425 30115	BC847BPN
7I51	9340 560 35235	BSH112
7I52	9340 560 35235	BSH112
7I55	4822 209 16095	BA7657F
7I56	3198 010 42310	BC847BW
7I57	3198 010 42310	BC847BW
7I58	3198 010 42310	BC847BW
7I59	9340 560 35235	BSH112
7I64	3198 010 42310	BC847BW
7I65	4822 209 17398	LD1117DT33
7I66	3198 010 42310	BC847BW
7I71	4822 209 16095	BA7657F
7I72	9340 560 35235	BSH112
7I90	3198 010 42310	BC847BW
7I91	3198 010 42310	BC847BW
7I92	3198 010 42310	BC847BW
7I93	3198 010 42310	BC847BW
7I94	3198 010 42310	BC847BW
7I95	3198 010 42310	BC847BW
7IST	4822 209 17398	LD1117DT33
7L01	9322 181 72671	AD9883AKST-110
7L01	9322 211 20671	AD9883AKSTZ-110
7L02	4822 209 17398	LD1117DT33
7P01	3198 010 42310	BC847BW
7P02	3198 010 42310	BC847BW
7P03	3198 010 42310	BC847BW
7P04	3198 010 42320	BC857BW
7P05	3198 010 42310	BC847BW
7P06	3198 010 42310	BC847BW
7P07	9340 425 20115	BC847BS
7P08	3198 010 42310	BC847BW
7P09	9352 625 24518	TDA9321H/N2
7P52	9340 425 20115	BC847BS
7P53	9340 425 10115	BC857BS
7P54	9322 208 56668	BA7609F
7P55	9350 399 00118	TDA9820T/V1
7P55	9350 399 00518	IC SM TDA9820T/V1
7P56	4822 209 17345	M62320FP
7P58	9340 425 20115	BC847BS
7P59	9340 425 20115	BC847BS
7P60	9352 690 58125	74LVC1G66GW
7P61	9340 425 20115	BC847BS
7P62	9352 690 58125	74LVC1G66GW
7P63	3198 010 42320	BC857BW
7PA0	3198 010 42310	BC847BW
7PA1	3198 010 42310	BC847BW
7PA2	3198 010 42310	BC847BW
7PA5	3198 010 42310	BC847BW
7PA6	9352 639 83557	SAB9083H/N4
7PA7	3198 010 42310	BC847BW
7PA8	3198 010 42310	BC847BW
7PA9	3198 010 42310	BC847BW
7PB1	9352 683 81115	74LVC1G32GW
7PB2	3198 010 42310	BC847BW
7PB5	3198 010 42310	BC847BW
7PB6	3198 010 42310	BC847BW
7U01	4822 130 60373	BC856B
7U02	4822 130 60373	BC856B
7U03	9340 563 82118	SI4410DY
7U03	9340 563 82518	SI4410DY
7U04	9340 563 82118	SI4410DY
7U04	9340 563 82518	SI4410DY
7U05	3198 010 42320	BC857BW
7U06	9340 425 20115	BC847BS
7U07	9340 425 30115	BC847BPN
7U08	4822 130 42804	BC817-25
7U09	4822 130 42804	BC817-25
7U10	3198 010 42310	BC847BW
7U11	3198 010 42310	BC847BW
7U12	3198 010 42310	BC847BW
7U13	9340 425 30115	BC847BPN
7V01	9322 217 35671	EP1C12F256C8N
7V03	9322 206 19672	MSM56V16160F-7T3-FG
7V04	9340 425 20115	BC847BS
7Y01	9340 310 30215	PDTC144ET
7Y02	3198 010 42320	BC857BW
7Y03	9340 310 30215	PDTC144ET
7Y04	9340 310 30215	PDTC144ET

PDP Audio Panel [C]

Various

1701	2422 549 00112	Line filt. 50V 3A
1702	2422 549 00112	Line filt. 50V 3A
1735	2422 025 10768	Connector 3p m
1735	4822 267 10918	Connector 3p
1736	2422 025 10768	Connector 3p m
1739	2422 025 10769	Connector 9p m
1M02	2422 025 11244	Connector 7p m
1M02	4822 267 10618	Connector 7p
1M06	2422 025 11244	Connector 7p m
1M52	2422 025 10769	Connector 9p m

⊣⊢

2700	4822 126 14247	1.5nF 50V 0603
2701	2020 552 94427	100pF 5% 50V
2701	4822 126 14249	560pF 10% 50V 0603
2702	5322 126 11578	1nF 10% 50V 0603
2703	2020 552 96683	220nF 10% 50V
2704	4822 124 11767	470µF 20% 25V
2704	5322 126 11578	1nF 10% 50V 0603
2705	2020 552 96684	470nF 10% 25V 0805
2705	4822 126 14249	560pF 10% 50V 0603
2706	2222 580 15649	100nF 10% 50V 0805
2706	5322 126 11579	3.3nF 10% 63V
2707	2222 580 15649	100nF 10% 50V 0805
2707	4822 126 14585	100nF 10% 0805 50V
2708	2020 552 96326	220nF 10% 16V
2709	2020 552 96683	220nF 10% 50V
2709	4822 126 13881	470pF 5% 50V
2710	2020 552 96683	220nF 10% 50V
2710	4822 126 13881	470pF 5% 50V
2711	2022 552 05679	1µF 10% 16V 0805
2711	5322 126 11578	1nF 10% 50V 0603
2712	2020 552 96684	470nF 10% 25V 0805
2712	4822 126 14583	470nF 10% 16V 0805
2713	2020 552 96684	470nF 10% 25V 0805
2713	4822 126 13193	4.7nF 10% 63V
2714	3198 017 33330	33nF 20% 16V 0603
2714	4822 126 14549	33nF 16V 0603
2715	4822 121 51252	470nF 5% 63V
2715	5322 126 11578	1nF 10% 50V 0603
2716	3198 017 31530	15nF 20% 50V 0603
2716	4822 126 14241	330pF 0603 50V
2717	2022 552 05679	1µF 10% 16V 0805
2717	5322 121 42498	680nF 5% 63V
2718	2222 580 15649	100nF 10% 50V 0805
2718	4822 122 33761	22pF 5% 50V
2719	4822 126 14583	470nF 10% 16V 0805
2719	5322 126 11578	1nF 10% 50V 0603
2720	2020 021 91431	22µF 20% 100V
2720	2020 552 96326	220nF 10% 16V
2721	2222 580 15649	100nF 10% 50V 0805
2721	4822 126 13881	470pF 5% 50V
2722	4822 126 13881	470pF 5% 50V
2722	4822 126 14583	470nF 10% 16V 0805
2723	2022 552 05679	1µF 10% 16V 0805
2724	2020 552 96684	470nF 10% 25V 0805
2726	3198 017 33330	33nF 20% 16V 0603
2726	4822 126 13193	4.7nF 10% 63V
2726	4822 126 14549	33nF 16V 0603
2727	4822 126 14249	560pF 10% 50V 0603
2727	5322 126 11578	1nF 10% 50V 0603
2728	4822 126 14241	330pF 0603 50V
2729	5322 121 42498	680nF 5% 63V
2730	2020 552 96684	470nF 10% 25V 0805
2731	4822 126 14249	560pF 10% 50V 0603
2732	4822 126 14583	470nF 10% 16V 0805
2736	4822 121 51252	470nF 5% 63V
2737	3198 017 31530	15nF 20% 50V 0603
2739	2222 580 15649	100nF 10% 50V 0805
2741	4822 126 13883	220pF 5% 50V
2743	3198 016 31020	1nF 25V 0603
2744	2222 580 15649	100nF 10% 50V 0805
2745	2020 552 96683	220nF 10% 50V
2746	4822 124 11767	470µF 20% 25V
2747	2022 552 05679	1µF 10% 16V 0805
2748	4822 126 14247	1.5nF 50V 0603
2749	5322 126 11579	3.3nF 10% 63V
2751	4822 124 40433	47µF 20% 25V
2754	2020 021 91431	22µF 20% 100V
2764	4822 126 14491	2.2µF 10V 0805
2766	4822 126 14491	2.2µF 10V 0805
2768	4822 124 40255	100µF 20% 63V
2769	4822 124 40255	100µF 20% 63V
2770	3198 017 41050	1µF 10V 0603
2776	2020 021 91431	22µF 20% 100V
2777	2020 552 96683	220nF 10% 50V
2778	4822 124 40769	4.7µF 20% 100V
2779	2020 552 96683	220nF 10% 50V
2780	2020 552 96683	220nF 10% 50V
2780	4822 126 14583	470nF 10% 16V 0805
2781	2020 552 96683	220nF 10% 50V
2783	4822 124 81151	22µF 50V
2786	2238 586 15641	22nF 10% 50V 0603
2788	4822 124 40255	100µF 20% 63V
2789	2020 552 96684	470nF 10% 25V 0805
2789	4822 126 14583	470nF 10% 16V 0805
2790	2222 580 15649	100nF 10% 50V 0805
2790	4822 124 40255	100µF 20% 63V
2791	4822 126 13879	220nF +80-20% 16V
2792	2020 552 94427	100pF 5% 50V
2793	2020 552 94427	100pF 5% 50V

⌐WW⌐

3700	4822 051 30561	560Ω 5% 0.062W
3701	4822 051 30103	10kΩ 5% 0.062W
3701	4822 051 30479	47Ω 5% 0.062W
3702	3198 021 38220	8.2kΩ 5% 0.062W 0603
3702	4822 051 30682	6.8Ω 5% 0.062W
3703	3198 021 38220	8.2kΩ 5% 0.062W 0603
3703	4822 051 30333	33kΩ 5% 0.062W
3704	4822 117 10833	10kΩ 1% 0.1W
3704	4822 117 13632	100kΩ 1% 0603 0.62W

3705	4822 051 20828	8.2Ω 5% 0.1W
3705	4822 051 30222	2.2kΩ 5% 0.062W
3706	4822 051 30392	3.9Ω 5% 0.063W 0603
3706	4822 051 30472	4.7Ω 5% 0.062W
3707	4822 051 30393	39kΩ 5% 0.062W
3707	4822 051 30683	68kΩ 5% 0.062W
3708	4822 051 30479	47Ω 5% 0.062W
3708	4822 051 30563	56kΩ 5% 0.062W
3709	4822 051 30472	4.7Ω 5% 0.062W
3709	4822 117 11503	220Ω 1% 0.1W
3710	4822 051 30223	22kΩ 5% 0.062W
3710	4822 051 30393	39kΩ 5% 0.062W
3711	2322 762 60568	5.6Ω 5% 5% 2512
3711	4822 050 21204	120kΩ 1% 0.6W
3712	4822 051 30103	10kΩ 5% 0.062W
3712	4822 051 30472	4.7Ω 5% 0.062W
3713	4822 051 30332	3.3Ω 5% 0.062W
3713	4822 116 52207	1.2kΩ 5% 0.5W
3713	4822 117 11817	1.2kΩ 1% 0.0625W
3714	4822 051 30392	3.9Ω 5% 0.063W 0603
3714	4822 117 12925	47kΩ 1% 0.063W 0603
3715	2322 762 60568	5.6Ω 5% 5% 2512
3715	4822 117 12925	47kΩ 1% 0.063W 0603
3716	4822 117 12925	47kΩ 1% 0.063W 0603
3716	4822 117 13632	100kΩ 1% 0603 0.62W
3717	4822 051 30222	2.2kΩ 5% 0.062W
3717	4822 116 52234	100kΩ 5% 0.5W
3718	4822 051 30561	560Ω 5% 0.062W
3718	4822 117 13632	100kΩ 1% 0603 0.62W
3719	4822 051 30124	120kΩ 5% 0.062W
3720	4822 051 30479	47Ω 5% 0.062W
3721	4822 051 30471	47Ω 5% 0.062W
3721	4822 051 30472	4.7Ω 5% 0.062W
3722	4822 051 30124	120kΩ 5% 0.062W
3722	4822 051 30683	68kΩ 5% 0.062W
3723	4822 051 30471	47Ω 5% 0.062W
3723	4822 051 30563	56kΩ 5% 0.062W
3724	4822 051 30102	1kΩ 5% 0.062W
3724	4822 117 11503	220Ω 1% 0.1W
3725	4822 051 30223	22kΩ 5% 0.062W
3725	4822 117 12925	47kΩ 1% 0.063W 0603
3726	4822 051 30153	15kΩ 5% 0.062W
3726	4822 117 11503	220Ω 1% 0.1W
3727	4822 051 30103	10kΩ 5% 0.062W
3727	4822 117 11503	220Ω 1% 0.1W
3728	4822 051 30153	15kΩ 5% 0.062W
3729	4822 117 12925	47kΩ 1% 0.063W 0603
3730	4822 051 30223	22kΩ 5% 0.062W
3731	4822 051 30102	1kΩ 5% 0.062W
3732	4822 051 30223	22kΩ 5% 0.062W
3733	4822 051 30562	5.6kΩ 5% 0.063W 0603
3734	4822 051 30223	22kΩ 5% 0.062W
3735	4822 117 12889	270kΩ 1% 0.063W 0603
3736	4822 117 12925	47kΩ 1% 0.063W 0603
3737	4822 117 12925	47kΩ 1% 0.063W 0603
3738	4822 117 13632	100kΩ 1% 0603 0.62W
3740	4822 117 13632	100kΩ 1% 0603 0.62W
3742	4822 117 13632	100kΩ 1% 0603 0.62W
3743	4822 117 11449	2.2kΩ 5% 0.1W 0805
3746	4822 051 30222	2.2kΩ 5% 0.062W
3746	4822 051 30223	22kΩ 5% 0.062W
3747	4822 117 12925	47kΩ 1% 0.063W 0603
3748	4822 116 83883	470Ω 5% 0.5W
3748	4822 117 13632	100kΩ 1% 0603 0.62W
3750	4822 117 11449	2.2kΩ 5% 0.1W 0805
3751	4822 051 30222	2.2kΩ 5% 0.062W
3752	4822 051 30103	10kΩ 5% 0.062W
3756	4822 117 11449	2.2kΩ 5% 0.1W 0805
3757	4822 117 11449	2.2kΩ 5% 0.1W 0805
3760	4822 051 30223	22kΩ 5% 0.062W
3760	4822 117 12891	220kΩ 1%
3761	4822 051 20109	10Ω 5% 0.1W
3762	4822 051 20109	10Ω 5% 0.1W
3763	4822 117 13632	100kΩ 1% 0603 0.62W
3764	4822 051 30222	2.2kΩ 5% 0.062W
3764	4822 117 13632	100kΩ 1% 0603 0.62W
3765	4822 051 30222	2.2kΩ 5% 0.062W
3765	4822 117 13632	100kΩ 1% 0603 0.62W
3766	4822 051 30103	10kΩ 5% 0.062W
3766	4822 117 13632	100kΩ 1% 0603 0.62W
3767	4822 117 13632	100kΩ 1% 0603 0.62W
3768	4822 117 13632	100kΩ 1% 0603 0.62W
3769	4822 051 30101	100Ω 5% 0.062W
3770	4822 051 30101	100Ω 5% 0.062W
3777	4822 051 30102	1kΩ 5% 0.062W
3778	4822 051 30479	47Ω 5% 0.062W
3790	4822 051 30272	2.7kΩ 5% 0.062W
3791	4822 051 30272	2.7kΩ 5% 0.062W
3792	4822 051 30103	10kΩ 5% 0.062W
3792	4822 051 30183	18kΩ 5% 0.062W
3793	4822 051 30103	10kΩ 5% 0.062W
3793	4822 051 30183	18kΩ 5% 0.062W
3798	4822 051 30153	15kΩ 5% 0.062W
3999	4822 051 30101	100Ω 5% 0.062W
3999	4822 051 30102	1kΩ 5% 0.062W
9701	3198 036 90010	Wire 0.58mm
9702	3198 036 90010	Wire 0.58mm
9703	3198 036 90010	Wire 0.58mm
9706	3198 036 90010	Wire 0.58mm
9707	3198 036 90010	Wire 0.58mm
9708	3198 036 90010	Wire 0.58mm
9709	3198 036 90010	Wire 0.58mm
9710	4822 051 20008	Jumper 0805
9711	4822 051 20008	Jumper 0805
9712	3198 036 90010	Wire 0.58mm
9712	4822 051 20008	Jumper 0805
9713	4822 051 20008	Jumper 0805
9717	4822 051 30008	Jumper 0603
9748	4822 051 20008	Jumper 0805
9757	4822 051 20008	Jumper 0805
9758	4822 051 20008	Jumper 0805
9759	4822 051 20008	Jumper 0805
9760	4822 051 20008	Jumper 0805
9761	4822 051 20008	Jumper 0805
9762	4822 051 20008	Jumper 0805
9763	4822 051 20008	Jumper 0805
9764	4822 051 20008	Jumper 0805
9765	4822 051 20008	Jumper 0805
9766	4822 051 20008	Jumper 0805
9768	4822 051 20008	Jumper 0805
9770	4822 051 20008	Jumper 0805
9790	4822 051 20008	Jumper 0805
9795	4822 051 20008	Jumper 0805
9796	4822 051 20008	Jumper 0805
9806	4822 051 20008	Jumper 0805
9807	4822 051 20008	Jumper 0805
9808	4822 051 20008	Jumper 0805

5700	2422 536 00942	33µH 20%
5701	2422 536 00385	68µH 10%
5701	2422 536 00951	68µH 20% LHL10
5701	4822 157 11716	Bead 30Ω at 100MHz
5702	2422 536 00385	68µH 10%
5702	2422 536 00942	33µH 20%
5702	2422 536 00951	68µH 20% LHL10
5703	4822 157 11716	Bead 30Ω at 100MHz
5704	4822 157 11716	Bead 30Ω at 100MHz
5705	4822 157 11411	Bead 80Ω at 100MHz
5707	4822 157 11411	Bead 80Ω at 100MHz
5708	4822 157 11411	Bead 80Ω at 100MHz
5711	4822 157 11411	Bead 80Ω at 100MHz
5712	4822 157 11411	Bead 80Ω at 100MHz

6700	4822 130 11522	UDZ15B
6701	4822 130 11397	BAS316
6702	9322 150 18685	BZX384-C47
6703	4822 130 10838	UDZ3.3B
6704	4822 130 11551	UDZS10B
6705	4822 130 11551	UDZS10B
6710	4822 130 11551	UDZS10B
6711	4822 130 11551	UDZS10B

7700	9322 163 86682	TDA7490L
7700	9322 202 89668	LM393P
7701	3198 010 42310	BC847BW
7701	5322 130 60159	BC846B
7701	9352 729 65112	TDA8925ST/N1
7702	3198 010 42310	BC847BW
7703	3198 010 42310	BC847BW
7703	5322 130 60159	BC846B
7704	3198 010 42310	BC847BW
7704	5322 130 60159	BC846B
7705	3198 010 42310	BC847BW
7705	5322 130 60159	BC846B
7706	3198 010 42310	BC847BW
7706	3198 010 42320	BC857BW
7706	4822 130 60373	BC856B
7707	3198 010 42310	BC847BW
7707	5322 130 60159	BC846B
7708	3198 010 42320	BC857BW
7709	3198 010 42310	BC847BW
7710	3198 010 42310	BC847BW
7710	5322 130 60159	BC846B
7711	3198 010 42310	BC847BW
7711	3198 010 42320	BC857BW
7711	5322 130 60159	BC846B
7712	3198 010 42310	BC847BW
7712	5322 130 60159	BC846B
7713	3198 010 42310	BC847BW
7713	5322 130 60159	BC846B
7715	3198 010 42310	BC847BW
7716	3198 010 42310	BC847BW
7717	3198 010 42310	BC847BW
7720	3198 010 42310	BC847BW

Side I/O Panel [D]

Various

1001	2422 026 05133	Connector SVHS 4p f
1002	4822 267 10975	Soc. Cinch f YeWhRd
1010	4822 267 31014	Soc. headphone
1M36	2422 025 17179	Connector 11p m

2003	2022 552 05679	1µF 10% 16V 0805
2004	3198 016 36810	680pF 25V 0603
2005	2020 552 94427	100pF 5% 50V
2006	3198 016 36810	680pF 25V 0603
2007	2020 552 94427	100pF 5% 50V
2008	2238 916 15641	22nF 10% 25V 0603
2009	5322 126 11583	10nF 10% 50V 0603
2010	2238 916 15641	22nF 10% 25V 0603
2011	5322 126 11583	10nF 10% 50V 0603

3000	4822 051 30759	75Ω 5% 0.062W
3004	4822 051 30759	75Ω 5% 0.062W
3008	4822 051 30222	2.2kΩ 5% 0.062W
3009	4822 051 30102	1kΩ 5% 0.062W
3010	4822 051 30333	33kΩ 5% 0.062W
3011	4822 051 30392	3.9Ω 5% 0.063W 0603
3012	4822 051 30102	1kΩ 5% 0.062W
3013	4822 051 30333	33kΩ 5% 0.062W
3016	4822 051 30103	10kΩ 5% 0.062W
3020	4822 051 30103	10kΩ 5% 0.062W
9004	4822 051 30008	Jumper 0603
9005	4822 051 30008	Jumper 0603
9006	4822 051 30008	Jumper 0603
9007	4822 051 30008	Jumper 0603
9008	4822 051 30008	Jumper 0603
9009	4822 051 30008	Jumper 0603
9010	4822 051 30008	Jumper 0603
9011	4822 051 30008	Jumper 0603

6000	4822 130 11416	PDZ6.8B
6001	4822 130 11416	PDZ6.8B
6002	4822 130 11416	PDZ6.8B
6003	4822 130 11416	PDZ6.8B
6004	4822 130 11416	PDZ6.8B
6005	4822 130 11416	PDZ6.8B
6006	4822 130 11416	PDZ6.8B
6007	4822 130 11416	PDZ6.8B
6008	4822 130 11416	PDZ6.8B
6009	4822 130 11416	PDZ6.8B
6010	4822 130 11416	PDZ6.8B
6011	4822 130 11416	PDZ6.8B

Control Panel [E]

Various

1701	4822 276 13775	Switch 1p 0.1A 12V
1702	4822 276 13775	Switch 1p 0.1A 12V
1703	4822 276 13775	Switch 1p 0.1A 12V
1704	4822 276 13775	Switch 1p 0.1A 12V
1705	4822 276 13775	Switch 1p 0.1A 12V
1710	2422 128 00119	Switch 2p 0.1A 12V
8345	3104 311 06941	Cable 6p/680/6p
8345	3104 311 08141	Cable 6p/480/6p

3008	4822 117 10845	620Ω 1% 0.1W
3010	4822 117 11534	1.1kΩ 1% 0.1W
3011	4822 117 11951	2kΩ 1% 0.1W
3013	4822 117 13528	200Ω 1% 0.125W 0805
3014	3198 031 03910	390Ω 1% 0402
3017	4822 051 30339	33Ω 5% 0.062W
3018	4822 051 30339	33Ω 5% 0.062W
3019	4822 051 30339	33Ω 5% 0.062W
3020	4822 051 30339	33Ω 5% 0.062W
3021	4822 051 30339	33Ω 5% 0.062W
3022	4822 051 30339	33Ω 5% 0.062W

3023	4822 051 30339	33Ω 5% 0.062W
3024	4822 051 30339	33Ω 5% 0.062W
3025	4822 051 30339	33Ω 5% 0.062W
3026	4822 051 30339	33Ω 5% 0.062W
3027	4822 051 30339	33Ω 5% 0.062W
3028	4822 051 30339	33Ω 5% 0.062W
3999	4822 117 13602	2.2kΩ 5% 0.01W 0402
9000	4822 117 13605	Jumper 0402
9001	4822 117 13605	Jumper 0402
9002	4822 117 13605	Jumper 0402

6001	9322 208 45685	SML512BC4TL
6002	9322 208 45685	SML512BC4TL
6003	9322 208 45685	SML512BC4TL
6004	9322 208 45685	SML512BC4TL
6005	9322 208 45685	SML512BC4TL
6006	9322 208 45685	SML512BC4TL
6007	9322 208 45685	SML512BC4TL
6008	9322 208 45685	SML512BC4TL
6009	9322 208 45685	SML512BC4TL
6010	9322 208 45685	SML512BC4TL
6011	9322 208 45685	SML512BC4TL
6012	9322 208 45685	SML512BC4TL

LED and Switch Panel [J]

Various

1040	9322 206 81667	TSOP34836YA1
1M01	2422 025 17103	Conn. 3p m SMD
1M01	2422 025 18738	Conn. 3p m SMD no-Pb
1M20	2422 025 17441	Conn. 12p m SMD
1M20	2422 025 18736	Conn. 12p m SMD no-Pb

2030	4822 124 23002	10µF 16V
2040	4822 124 12095	100µF 20% 16V
2060	5322 124 41945	22µF 20% 35V
2070	4822 126 14583	470nF 10% 16V 0805
2071	4822 124 23002	10µF 16V

3011	4822 117 13545	100Ω 1% 0402
3020	4822 117 13606	10kΩ 5% 0.01W 0402
3030	3198 031 04720	4.7kΩ 5% 0402
3031	4822 117 11297	100kΩ 5% 0.1W
3031	4822 117 12889	270kΩ 1% 0.063W 0603
3031	4822 117 13632	100kΩ 1% 0603 0.62W
3032	2322 705 70184	180Ω 5% 0402
3033	4822 051 30102	1kΩ 5% 0.062W
3033	4822 117 13548	1kΩ 5% 0402
3034	4822 117 13548	1kΩ 5% 0402
3035	3198 031 04720	4.7kΩ 5% 0402
3036	3198 031 02280	2.2Ω 5% 0.1W 0402
3037	3198 031 02280	2.2Ω 5% 0.1W 0402
3040	4822 117 13597	330Ω 5% 0.01W 0402
3041	4822 117 13606	10kΩ 5% 0.01W 0402
3042	3198 031 06820	6.8kΩ 5% 0.01W 0402
3051	4822 117 13597	330Ω 5% 0.01W 0402
3060	4822 117 13606	10kΩ 5% 0.01W 0402
3061	4822 051 30331	330Ω 5% 0.062W
3062	4822 117 11373	100Ω 1% 0805
3063	4822 117 13606	10kΩ 5% 0.01W 0402
3064	4822 117 11373	100Ω 1% 0805
3070	2322 705 70475	4.7MΩ 5% 0402
3071	2322 705 70475	4.7MΩ 5% 0402
3072	4822 117 13548	1kΩ 5% 0402
3073	3198 031 03320	3.3kΩ 5% 0402
3074	4822 117 13606	10kΩ 5% 0.01W 0402
3075	3198 031 04720	4.7kΩ 5% 0402
3076	3198 031 03320	3.3kΩ 5% 0402
3077	3198 031 03320	3.3kΩ 5% 0402
3078	3198 031 03320	3.3kΩ 5% 0402
3079	3198 031 03320	3.3kΩ 5% 0402
3091	4822 117 13606	10kΩ 5% 0.01W 0402
3093	4822 117 13606	10kΩ 5% 0.01W 0402
3096	4822 117 13606	10kΩ 5% 0.01W 0402
3999	3198 031 04720	4.7kΩ 5% 0402
9010	4822 117 13605	Jumper 0402
9012	4822 117 13605	Jumper 0402
9013	4822 117 13605	Jumper 0402
9014	4822 117 13605	Jumper 0402
9015	4822 117 13605	Jumper 0402
9016	4822 117 13605	Jumper 0402
9017	4822 117 13605	Jumper 0402
9019	4822 117 13605	Jumper 0402
9022	4822 051 30008	Jumper 0603
9024	4822 051 30008	Jumper 0603
9026	4822 117 13605	Jumper 0402
9027	4822 117 13605	Jumper 0402
9040	4822 117 13605	Jumper 0402
9041	4822 117 13605	Jumper 0402
9042	4822 117 13605	Jumper 0402
9043	4822 117 13605	Jumper 0402
9044	4822 117 13605	Jumper 0402
9050	4822 117 13605	Jumper 0402
9060	4822 117 13605	Jumper 0402
9081	4822 117 13605	Jumper 0402
9082	4822 117 13605	Jumper 0402

6030	4822 130 11397	BAS316
6031	4822 130 11397	BAS316
6051	4822 130 11395	TLMH3100
6051	4822 130 83915	TLMV3100
6060	9322 208 45685	SML512BC4TL
6061	4822 130 11397	BAS316
6070	9322 140 63685	TEMD5000

7030	3198 010 42320	BC857BW
7031	5322 130 62804	BCP53
7032	3198 010 42310	BC847BW
7060	3198 010 42310	BC847BW
7061	3198 010 42310	BC847BW
7070	9322 192 63668	LM358P

11. Revision List

Manual xxxx xxx xxxx.0

- First release.

Manual xxxx xxx xxxx.1

- Circuit diagram B3D (Columbus) on page 36 has been scaled correctly (visualized the mapping).
- Chapter 5: Stepwise start-up flowcharts added for SDI v3 and FHP ALiS plasma panels.
- Chapter 10: Spare parts list added

Manual xxxx xxx xxxx.2

- Additionally to SDI displays, in the latest models of this TV set also FHP displays are used. In this manual, information on FHP displays was added.